Qualified Teachers For All California Students:

Current Issues in Recruitment, Retention, Preparation, and Professional Development

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TABLE OF CONTENTS

| Executive Summary | i |
|---|----|
| Historical Background and Introduction | 1 |
| The Role of the Teacher In Public Education | 1 |
| Societal Changes Influence Expectations of Teachers | |
| The Early Twentieth Century: Teaching Becomes a Profession | |
| The Mid-Twentieth Century: Sputnik-Driven Education Reform | 2 |
| Late Twentieth Century: Education Reformers Focus on Teachers | |
| Intent of this Report | 4 |
| Limitations of this Report | 5 |
| Teacher Shortage Issues | |
| Background | 6 |
| Recruitment | 9 |
| The Attractiveness of Teaching | |
| Barriers to Teacher Training | |
| Barriers to Hiring Qualified Teachers | 11 |
| Retention | 12 |
| Teacher Characteristics | |
| Occupations of Former Teachers | |
| Reasons Teachers Leave | |
| Decreasing the Teacher Shortage | 15 |
| Opportunities to be Credentialed and Hired | 15 |
| Financial Incentives for Teachers to Enter and Remain | |
| Methods to Increase Job Satisfaction and Desirability | |
| Teacher Education and Quality Issues | 22 |
| Teacher Preparation | 22 |
| The Effects of Quality Preparation | |
| Qualities of a Strong Teacher Training Program | 23 |
| Areas for Improvement in Teacher Training Programs | 23 |
| Continuing Professional Development | 25 |
| Qualities of Good Professional Development Programs | |
| Current Practices | |
| Challenges to Implementing Good Professional Development Programs | |
| Improving Teacher Quality | 28 |
| Collaboration Between Universities and Districts | |
| Incorporating Subject-Specific Training | 30 |
| Assessments of Teachers and Programs | 31 |
| Opportunities and Incentives for Teacher Growth | |
| Policy Options for Consideration | |
| Reducing the Teacher Shortage | 37 |
| Improving Teacher Quality | 39 |

| Appendix A: Legislative Action During the 1997-98 Session | 41 |
|---|----|
| Recruitment and Hiring | 41 |
| Preparation Programs and Assessments | 42 |
| Retention, Working Conditions, and Professional Development | 44 |
| Appendix B: Teaching Standards | 47 |
| The Interstate New Teacher Assessment and Support Consortium (INTASC) Standards | 47 |
| California Standards for the Teaching Profession | 48 |
| Appendix C: Alternative Credential Programs and Routes | 50 |

Executive Summary

Education reform is currently one of the top public policy issues, both nationally and in California. Unlike past reform efforts, much of the current research is focusing on the qualifications of K-12 public school teachers. Beginning in the mid-1980's, education researchers published a plethora of reports on teacher quality issues. A decade later, a second wave of teacher reform reports has attracted the attention of policy makers and educators. These reports indicate that the shortage of well-trained, fully qualified teachers is significantly affecting student achievement. Furthermore, they provide specific recommendations for how to improve teacher quality in four areas: Recruitment, retention, preparation, and professional development.

This paper describes the current issues in each of these areas, and the common recommendations of the various reports and studies. In addition, this paper lists legislative efforts from the 1997-98 session, and outlines further policy options for consideration.

Common Themes From the Literature

The common themes in teacher recruitment include recommendations to:

- provide financial incentives to teach;
- improve public perception of teaching;
- expand teacher credentialing opportunities; and
- improve district hiring abilities.

In retention, the literature recommends that policy makers and school districts:

- improve teacher compensation;
- increase administrative, school, and parental support for teachers; and
- expand teachers' decision making roles.

Several common themes in the literature on preparation include recommendations to:

- increase university support and communication;
- increase the relevancy of teacher education courses;
- improve university-district collaboration; and
- conduct performance-based assessments of teacher candidates.

Finally, researchers and policy groups also describe quality professional development programs and recommend methods for improving current practices. These include suggestions to:

- use long-term programs that can be incorporated into teachers' daily routines, with opportunities for further discussion;
- involve teachers in the planning process;
- create sufficient blocks of time for professional development; and
- provide incentives and hold districts and teachers accountable for participating in relevant, high-quality programs.

Policy Options for Consideration

The policy options address methods for both reducing the teacher shortage and improving the quality of teaching practices. In the area of teacher shortage, suggestions are made for:

- Increasing credential opportunities;
- Expanding undergraduate recruitment;
- Increasing pre-collegiate recruitment;
- Improving district abilities to recruit teachers;
- Improving financial incentives for teachers; and
- Increasing support for teachers.

On the issue of teacher quality, options are given for:

- Increasing teacher education relevancy;
- Improving teacher preparation assessment;
- Encouraging good professional development; and
- Dismissing incompetent teachers.

Historical Background and Introduction

The Role of the Teacher In Public Education

"[T]here was no golden age of American schooling, and what may have been good enough before is not good enough now."

American society places far greater demands on its public schools now than it did earlier this century. Students, as a body, are expected to achieve at much higher levels, while many come to school unprepared to learn. Historically, society and the public school system have expected high academic achievement of an elite few.² For most students, school was primarily a caretaking service. Today, children spend a greater number of years in school, and graduate from high school at a rate of over 85 percent, versus less than 10 percent at the beginning of the century.³

While attendance and graduation rates are still of concern, they are no longer the sole focus of public schools. With the recent changes in labor force demands, society now expects higher skill levels and achievement from all students. The nature of the workforce that students will enter has changed. There is a greater need for workers with skills in information technology, and with communication skills that can be applied to tasks in a growing service industry. Today's students are expected to understand technology much more advanced than the programming function on a VCR. They are expected to be proficient with computers and multimedia tools. These students will apply for jobs in which a talent for communication and teamwork is highly valued. As a result, the goals of their teachers have changed. Teachers must be able to prepare their students for a high-tech, collaborative workforce.

Societal Changes Influence Expectations of Teachers

In addition to changes in educational expectations, demographic and societal changes cause many children to come to school less prepared to learn. Children from impoverished or violent communities may arrive hungry or unable to focus on lessons. With the rise in births to teenage mothers, more adolescents are coping with the task of finishing high school while rearing a child. Drugs, gangs, and the threats of guns and violence are increasingly prevalent in California's schools, and school safety is a top concern for many teachers. Teachers are increasingly expected to play the roles of counselors, parole officers, caretakers, and educators, while providing greater academic content in each grade level.

Other demographic changes are also reshaping teachers' roles. An increasing number of students, especially in California, are not fluent in English, and teachers must contend with a greater variety of cultural backgrounds in their classrooms.⁴ While the greater diversity has benefits for students, it also requires that teachers be aware of cultural differences and techniques for teaching diverse groups of students. This change is reflected in California's Crosscultural Language and Academic Development (CLAD) and bilingual (BCLAD) certificates, which authorize teachers to teach Limited English Proficient children (with CLAD) or in a bilingual classroom (with BCLAD).⁵

The Early Twentieth Century: Teaching Becomes a Profession

With these changes have come changes in the professional nature of teaching. When public schools first started, it was not uncommon for the smartest girl in a class to be asked to teach the grade she had just completed.⁶ In the 1800's, with the growth of the public schools, education advocates lobbied for increased teacher training, and the first teacher training institute (called a "normal school") was established in 1839. In the early decades of the twentieth century, normal schools expanded as more people became interested in a college education. The availability of teachers' colleges did not, however, imply that a bachelor's degree was required for a teaching credential; in 1933, while 85% of high school teachers had degrees, only 10% of elementary school teachers did.⁷

During the 1800's and early 1900's teachers unionized, founding the National Teachers' Association (later the National Education Association) in 1857 and the American Federation of Teachers in 1916. These unions are responsible for negotiating teachers' wages, benefits, and working conditions. They were formed at a time when schools were politically controlled, and teachers risked arbitrary dismissals. Teachers' unions were instrumental in obtaining job security, in the form of tenure, for teachers. As a result of pressure from unions and other school reformers, changes in school governance and structure took place in the 1920's.⁸ Teachers were tested, held accountable, and paid according to a salary schedule format still in use today.⁹

The Mid-Twentieth Century: Sputnik-Driven Education Reform

In the 1960's, pressure for reform came from concern over Soviet scientific advances and fears that American children were behind in basic skills. The 1957 launching of Sputnik by the Soviet Union resulted in federal legislation, the National Education Defense Act. Law makers focused their efforts on raising an elite group of students with strong math and science skills. Most of the reform during this time period aimed to make education "teacher proof." Curriculum requirements and regulations were narrowly tailored to take decision-making responsibility out of the hands of teachers.

Late Twentieth Century: Education Reformers Focus on Teachers

The focus on teachers is a recent, post-1980, development. Often cited as a landmark piece, the 1983 Education Department report *A Nation At Risk* warned that American schools were drowning in a "rising tide of mediocrity." In response, the Carnegie Forum on Education and the Economy issued *A Nation Prepared: Teachers for the 21st Century* (1986) and the Holmes Group, an organization of deans from 100 education schools, published *Tomorrow's Teachers* (1986). These reports argued for the professionalization¹¹ of teaching. The Carnegie report resulted in the formation of the National Board for Professional Teaching Standards. This National Board, which has established rigorous standards for experienced teachers, seeks to promote the lifelong learning of teachers. A summary of the major reports from this period¹³ noted several common themes in teacher education recommendations:

- Schools of education must model good teaching practices.
- Teachers must understand child learning and development, pedagogical techniques, and subject matter.
- Student teaching experiences should be integrated and strengthened.
- Schools of education should have more stringent selection requirements and work to recruit underrepresented populations into teaching.
- There should be many parties (the university, local schools, policy makers) involved in teacher education.
- Continued research on teaching is needed.

These themes were echoed in later reports, and are still prevalent in the most recent education reform efforts.

The Holmes Group issued two more reports, in the mid-nineties, entitled *Tomorrow's Schools* (1994), which promoted professional development schools, and *Tomorrow's Schools of Education* (1995) which advocated stronger university involvement in local schools. Meanwhile, in government, state governors launched "America 2000" (1989), a national education standards plan, and Congress passed "Goals 2000" (1994), which legislated a national standards movement.¹⁴ These documents ushered in a new era of education reform, with teachers playing an increasingly central role, and several states took up the call for improved teaching quality.¹⁵

The latest group of education literature includes reports from the National Commission on Teaching and America's Future (NCTAF), What Matters Most: Teaching for America's Future (1996) and Doing What Matters Most: Investing in Quality Teaching (1997). In California, the California Commission on Teacher Credentialing (CTC) published the results of a two-year study, required by Senate Bill 1422 (1992 Bergeson), titled California's Future: Highly Qualified Teachers for All Students (1997) and the California State University system produced a similar study the same year. Other groups, both in California and nationally, have written on various aspects of teacher preparation.

One of the most recent developments is a move to define quality teaching through the use of descriptive standards. The National Board For Professional Teaching Standards (NBPTS) developed standards for experienced teachers, while the Interstate New Teacher Assessment and Support Consortium (INTASC) described the qualities a new teacher should possess. In California, the Commission on Teacher Credentialing (CTC) developed descriptive standards for all teachers. These three sets of standards are similar, and together they describe a quality teacher as one who:

- Engages and supports all students in learning;
- Understands child learning, development, and motivation;
- Creates and maintains effective environments for student learning;
- Understands and organizes subject matter for student learning;
- Plans instruction and designs learning experiences for all students;
- Uses a variety of instruction and communication techniques;

- Assesses student learning through formal and informal means;
- Develops as a professional educator and continually reflects on teaching practices; and
- Fosters relationships with colleagues, parents, and the community.

Policy groups are beginning to use these standards, and the values they express, in assessing new teachers and teacher education programs. Other major themes from these reports include expanding routes into the teaching profession, increasing collaboration among education factions, providing lifelong learning opportunities for teachers, and giving teachers greater respect and decision making power.

Intent of this Report

This paper reviews the recent literature on teacher qualifications, and identifies legislative options and activity. While a broad body of literature is represented, the purpose of this paper is to identify the common themes and recommendations from the recent major reports and their supporting works. The criticisms and approaches discussed are those that are most commonly found in the literature, and as such are not the views of any single interest group. Most of the information in this paper is drawn from the publications of:

- The National Commission on Teaching for America's Future (NCTAF);
- The California Commission on Teacher Credentialing (CTC);
- The California State University (CSU) Institute for Education Reform and Presidents' Committee on Teacher Preparation and K-18 Programs;
- The Consortium for Policy Research in Education (CPRE); and
- The Education Commission of the States (ECS).

The academic works of education scholars such as Linda Darling-Hammond, John Goodlad, Mary Kennedy, Richard Murnane, and others are also represented.

While some of the reports have been more comprehensive than others, they have each attempted to address at least one aspect of four major interest areas: teacher recruitment, retention, preparation, or professional development. The most extensive reports organize these topics either as (1) a continuum, reaching from precollegiate recruitment to professional development, or (2) two broad problems of teacher shortage and teacher quality. The former approach has the advantage of allowing for overlap of the different issues, which does occur. The second format, however, lends itself more easily to a discussion of current practices and potential solutions. For the sake of clarity, therefore, this paper follows the second approach, and is divided into two sections. The first addresses teacher shortage (recruitment and retention), and the second teacher quality (preparation and professional development). A discussion of relevant policy issues and legislative options follows the literature reviews of these topics.

Limitations of this Report

Teacher quality alone cannot transform public schools. In fact, policy analysts disagree on the importance of the role of the teacher in student performance. While recent reports like *What Matters Most* place a strong emphasis on teacher preparation, other policy analysts argue that vouchers, charter schools, and similar options will do more to raise student achievement. This paper does not attempt to address other areas of education reform, or to place a relative value on teacher preparation, except as it is reported in the literature. The school setting is discussed to the extent that it influences teacher performance and satisfaction, but the main focus of this report is on improving teacher qualifications, and increasing the number of qualified teachers, in the context of current public school needs.

An additional aspect of providing quality teachers is dismissing incompetent teachers. While a full discussion of tenure is outside the scope of this paper, teacher remediation and dismissal are mentioned as professional development issues. The recent popularity of peer review, as a form of teacher counseling and dismissal, is discussed under "Improving Teacher Quality."

Teacher Shortage Issues

Teacher shortage includes issues of both recruitment and retention. The first part of this section covers the background of California's teaching force and reasons for the current shortage. After this brief overview, this section is devoted to recruitment and retention as two separate topics. The literature on recruitment is extensive, and much has been written exclusively on California recruitment issues. Barriers to recruitment are discussed, with attention to initial recruitment, training accessibility, and hiring practices. The section on retention addresses reasons for both new and experienced teacher attrition.

Background

According to 1995-96 data, California has over 250,000 public school teachers,¹⁷ teaching in urban, suburban, and rural schools across the state. Traditionally, teaching has been the province of women and minorities, as these groups had access to only a limited number of careers. As barriers to more lucrative careers fell, the "best and brightest" of these groups began to migrate into newly accessible fields. However, the majority of teachers, except for high school mathematics, science, social science, and vocational education teachers, are still women. It is estimated that California will need to hire between 260,000 and 300,000 new teachers in the next ten years.¹⁸

The need for more teachers is not new. Throughout the nineteenth century, there was a national need for more teachers, and education reformers grew concerned that recruitment activities were focused simply on "finding warm bodies to fill classrooms." This need continued in many states, including California, through the twentieth century as well. Historically, California has experienced a chronic shortage of fully-credentialed²⁰ teachers in certain areas. Many of these shortages are in bilingual education, special education, mathematics, and physical sciences.

Emergency permits are a stopgap measure. Unfilled teaching positions in California are occupied by faculty with emergency permits or credential waivers. These emergency permit holders are hired at a district's discretion when the district is unable to find fullycredentialed teachers to meet its needs. The requirements for an emergency permit, which is issued by the California Commission on Teacher Credentialing (CTC), include possession of a bachelor's degree, passage of the California Basic Education Skills Test (CBEST), and some subject matter knowledge.²¹ Many emergency permit holders are credentialed teachers in other subject areas or persons with bachelor's degrees in the appropriate subject who have not yet obtained their teaching credential. Others may be in the beginning stages of teacher preparation.²² The CTC also has the authority to issue credential waivers to those who do not meet the emergency permit requirements.²³ In the 1996-97 school year, the CTC issued 23,687 emergency permits and 3,810 credential waivers to teachers. These teachers constituted 11 percent of the total number of teachers employed in California.²⁴ Faculty with emergency permits or waivers are more likely to leave the teaching profession in their first few years of teaching, which exacerbates the teacher shortage.²⁵

Student enrollment is increasing at a faster rate than predicted. The Superintendent of Public Instruction, Delaine Eastin, reported that California public schools enrolled 145,000 new students in the 1997-98 school year, in contrast to the projected 88,000.²⁶ By the year 2005, California is expected to have 6.3 million school children enrolled.²⁷ Student enrollment is also increasing in instructional areas where there has been a historic shortage of qualified teachers. Such areas include Limited English Proficient students and special education students.²⁸ As a result, the CTC reports a considerable increase in emergency permits with a Crosscultural Language and Academic Development (CLAD) emphasis at both the elementary (multiple subject) and secondary (single subject) school levels.²⁹ There has also been a steady increase, over the last decade, in the number of special education teachers needed. The total number of emergency permits given for special education and resource specialists, who serve special education students, has increased, rising from approximately 3,900 to 4,300 between the 1995-96 and 1996-97 school years alone.³⁰

California has one of the oldest teaching forces in the country. The average age of California public school teachers is 45,³¹ and some policy researchers predict that half of current teachers will retire in the next ten years.³² Different estimates place yearly retirement between two and five percent,³³ with an additional five percent of teachers lost through other attrition.

Class-Size Reduction has increased the need for teachers. In addition to enrollment growth and an aging teacher workforce, class-size reduction has exacerbated the need for teachers. The California Commission on Teacher Credentialing (CTC) reported that 19,500 additional teachers were needed in 1996-97 because of class-size reduction.³⁴ Reflective of this, the total Multiple Subject (elementary) Emergency Permits issued in the 1996-97 school year increased 115 percent over the previous year.³⁵ It is estimated that California will need to hire between 260,000 and 300,000 new teachers in the next ten years, in large part because of Class-Size Reduction.³⁶

California's teaching force is very different, demographically, from the population it serves. Many researchers and organizations³⁷ emphasize a need for California's teachers to be more ethnically diverse. At present, 60 percent of California students are non-white, in contrast to only 20 percent of the State's teachers.³⁸ While minority enrollments in teacher education programs have increased over the last few years, they have not approached the rate at which the student population is changing.³⁹ Minority teachers also teach more often in urban, high-risk districts. Such districts have higher rates of teacher attrition.⁴⁰

Advocates for increasing minority recruitment give several reasons for their position:

- Students benefit from having role models who look like them.
- The school benefits from "in-house" expertise when dealing with students from diverse cultures and backgrounds.
- Minority teachers are more likely to have been educated in urban, highminority schools, and thus are more likely to want to return to these communities to teach.⁴¹

Not all researchers, however, focus on minority teachers as a recruitment priority. Other authors focus on more general issues of recruitment. They may also emphasize recruiting people who want to work in inner-city, high-minority or high-poverty schools, without focusing exclusively on the ethnicity of the teacher.⁴²

The "best and brightest" are not always schoolteachers. Policy makers and researchers have expressed concern over the ranking of teachers on standardized tests. High academic achievers are lost at every step in the teacher preparation process. Those who enter teacher training tend to have graduated in the bottom half of their high school and college classes. Fewer high scoring credentialed teachers actually teach, and those who do teach tend to leave the profession earlier. 44

The validity of this measure of teaching quality, however, is disputed.⁴⁵ One researcher points out that more college graduates go into teaching than into any other single profession; 10 percent of female and 4 percent of male college graduates are employed as teachers.⁴⁶ With such numbers, we cannot reasonably expect them all to be the brightest graduates. Furthermore, an increase in the proportion of high achieving students who become teachers would have a great impact on other professions.

Researchers also criticize the narrow scope of academic standards and tests for teachers.⁴⁷ Such measures consider only knowledge, not important teaching qualities like the ability to explain or formulate problems. Those who are high academic achievers may not make better teachers. This assessment is reflected in administrative hiring preferences. While acknowledging that a minimum academic standing is important, administrators focus more on other teaching qualities, such as ability to relate to students and parents.⁴⁸

Recruitment

Numerous studies confirm that "prospective and practicing teachers enter the profession with the altruistic motive of helping youth and society."⁴⁹ The focus of this section is to discuss the barriers that prevent people with these altruistic goals from teaching.

Researchers identify several groups as potential teachers:

- (1) The active pool: recent graduates of teacher education programs who have or are actively searching for a teaching job.
- (2) The reserve pool: ex-teachers or people with teaching credentials who have yet to use them.
- (3) Those with experience in the education field: private school teachers, teacher aides and assistants, and teachers from other states.
- (4) "Mid-career changers": people currently in other fields.
- (5) "Future teachers": college and high school students.

In the 1993-94 school year, the reserve pool accounted for the majority of newly hired teachers in the United States. However, an increasingly larger proportion of newly hired teachers are new to the profession; one-third of California's new hires were first-time teachers.⁵⁰ As an increasing number of teachers come from outside the reserve pool, policy makers must use diverse tools to attract them to teaching, provide them with training, and hire them in shortage areas and fields.

The Attractiveness of Teaching

"[T]he job opportunities and salaries provided to teachers and the costs that individuals face as they prepare to enter or reenter teaching determine who will teach our children."⁵¹

Those who consider a career in teaching must weigh the intrinsic rewards, and benefits such as summer (or month-long) vacations, against costs such as potentially poorer salaries and fringe benefits and concerns over school safety.

Salaries may not be competitive. The average 1996-97 beginning salary for teachers in California was \$26,684, and the overall California average for teachers was \$42,992.⁵² A recent report by the NCTAF⁵³ indicated that teachers earn less than similarly educated workers in entry level positions, and considerably less than those in mathematics and science fields. A study of national teachers' salaries by the National Center for Education Statistics⁵⁴ found more modest results, stating that "new bachelor degree recipients in the fields of computer sciences, math and physical sciences, and business and management, who choose to teach, do so at considerable financial cost (\$6,000 to \$10,000)." After adjusting for the average 9.7 month contract for teachers, computer science majors still face significant costs. Conversely, those with academic degrees such as communications and social services may actually improve their income by teaching.

Other researchers,⁵⁵ also, do not find a great disparity in salaries, particularly in California. They point out that most teachers do not have full year contracts, and that this affects their yearly salary. One third of American public school teachers, however, reported earning supplemental wages during the 1990-91 school year; one fourth of teachers were employed outside the school. Seventeen percent of public school teachers earned a supplemental salary over the summer.⁵⁶ Regardless of whether teachers are currently paid too little, some researchers claim that raising teacher salaries, particularly at the entry level, will increase the number of people willing to teach.⁵⁷ These researchers do not specify the amount by which salaries should be increased.

Teaching may be perceived as a "second rate" or thankless profession. There is a common saying that "those who can, do. Those who can't, teach." Several education researchers have pointed to this belief as harmful to the ability of the profession to recruit new teachers. One public opinion survey, for instance, found that the percentage of parents who respond positively to the question of whether they would like their child to become a teacher has steadily decreased over the last few decades. Because of this attitude, students may be pressured by parents, peers, and professors to enter other careers. The recent reports of school violence may also dissuade people from considering a career in teaching.

Barriers to Teacher Training

"The problem is not a lack of interest, it's a lack of funding and programs to get people through the pipeline and into the classroom." ⁵⁹

The number of people who enter a teacher preparation program and become credentialed are a fraction of those interested in teaching. Many students are dissuaded from teacher education by the structure of the programs themselves. Common criticisms, which will be addressed in detail in the section on teacher preparation, include course inflexibility, boring or irrelevant pedagogical classes, and inability to begin the training as an undergraduate. People who are considering switching professions, or paraprofessionals in education, experience difficulties in finding accessible education courses.

Those who want to enter teacher training programs often cannot find slots. This problem is exacerbated by the number of teacher education graduates who either do not obtain their credential, or choose not to teach after becoming credentialed. Twenty-five percent of credentialed teachers never teach; for them, it is simply a backup career or an asset to another occupation. As a result, more than one quarter of program openings are taken by people who do not become teachers, while many aspiring teachers are denied entry. Program capacity is also an issue with alternative certification routes, which are designed for people who cannot afford to undertake the traditional program. (For more information on alternative programs, see Appendix C.)

Barriers to Hiring Qualified Teachers

"On virtually every measure, teachers' qualifications vary by the status of the children they serve." ⁶¹

Urban and rural districts experience more staffing difficulties than do their suburban counterparts. This is reflected in the number of emergency permits and waivers allotted to different counties. Los Angeles, San Bernardino, Riverside, Tulare, Imperial, and Kings Counties all have over 11 percent (the state average) of their teachers on emergency permits or waivers. Some districts also have staffing difficulties due to cumbersome hiring practices, which may make it difficult to offer a teacher a job.

Teachers hold out for suburban openings. Studies indicate that the proportion of the student body that is non-white and the perceived safety of the school are related to a teacher's willingness to teach there.⁶² Suburban districts, which often pay higher salaries,⁶³ are more attractive than urban districts. According to one policy group,⁶⁴ the best paid teachers in the wealthiest districts earned over 35 percent more than those in high poverty districts in 1994.

District hiring procedures are cumbersome. A common problem in school districts is the numerous steps required to hire a new teacher.⁶⁵ With the amount of paperwork that must be filled out, it may take a district several months to offer a teacher candidate a job. In the meantime, the candidate may have taken a job in another district, or in another field altogether. This problem is compounded by the fact that, due to resignation policies, many districts cannot begin their hiring processes until the summer months. This puts districts with high turnover rates, such as urban districts, at a disadvantage. They need to fill many slots by the beginning of the school year, but do not know how many teachers or in what subject areas they are needed until late summer. Internal transfer procedures, which give experienced teachers in the district priority for new openings, may also discourage applicants.⁶⁶ These procedures leave new teachers with the least desirable teaching positions in the district.

Retention

Approximately five percent of teachers leave teaching every year for reasons other than retirement, and between seven and eight percent change schools.⁶⁷ This section addresses the reasons that these teachers leave, and provides information on what other careers they choose.

Teacher Characteristics

"The likelihood of leaving teaching differs by age, gender, years of experience, academic background, level, specialty field, salary, and workplace conditions." ⁶⁸

Experience. Beginning teachers are most likely to leave teaching, with 30 to 50 percent leaving within their first five years.⁶⁹ Teachers with emergency permits leave at even higher rates (60%).⁷⁰ Inexperienced teachers are also more likely to change districts.⁷¹

Level and specialty. Researchers report that secondary school teachers leave more quickly than elementary school teachers, with physics and chemistry teachers leaving first. However, a 1991-92 U.S. Department of Education (USDE) survey found little variance in the attrition of science, math, and other general education teachers. The reasons for this contradiction are unclear. Most researchers do agree, however, that elementary school teachers are more likely to return to teaching than their secondary counterparts.

Academic background. Teachers who have higher scores on standardized tests are more likely to leave teaching within a few years.⁷³ They are also less likely to enter the teaching profession after becoming certified, and less likely to return to teaching after leaving.

Salary and benefits. Teachers with lowest salaries, particularly in their first years, leave at a higher rate.⁷⁴ Most teachers who leave the profession, however, do not report low salaries as their primary reason for leaving. Some researchers also indicate that retirement benefits may play a role in teacher retention.⁷⁵

Age and gender. Proportionally, young women (under 30) are the most likely to leave,⁷⁶ followed by older women (50 or over), who generally retire.⁷⁷ The attrition rate for middle-aged teachers is significantly lower.⁷⁸ Women who are at least 30 years old when they leave teaching are more likely to return than are younger women or men of any age.⁷⁹ Young men who leave teaching are the least likely to return.

Workplace conditions. Central city and high-poverty schools have higher turnover rates, as do very small (less than 300 students enrolled) schools. ⁸⁰ One researcher hypothesizes that the higher turnover rates in small schools may be due to lower salaries and benefits. ⁸¹ Workplace conditions also impact the rate at which minority teachers leave. Although a higher proportion of minority teachers leave the teaching profession, this ethnic difference can be accounted for by the greater proportion of minorities teaching in urban districts.

According to one study, once working conditions are accounted for, African Americans are no more likely to leave than whites.⁸²

Occupations of Former Teachers

Roughly one quarter of teachers return to teaching, typically with a one year absence.⁸³ The most commonly cited reasons for leaving the teaching profession are retirement and family or personal reasons. This is followed by the pursuit of other careers, which may or may not be in the educational arena. A 1991-92 U.S. Department of Education (USDE) survey reported that approximately 33 percent of teachers who left the profession were retired, 19 percent were "homemaking and/or childrearing," 15 percent were still working in schools, and 14 percent were working in other occupations.⁸⁴

Reasons Teachers Leave

"In survey after survey, teachers consistently report that they do not have the time and resources to do their work, that they have too few opportunities to interact with colleagues and to influence school policies and practices, and that their efforts go unrecognized." 85

While the most common reason given for leaving the teaching profession is "family or personal reasons," other frequently cited reasons include lack of administrative support, lack of parental support, discipline problems, disillusion or burnout, and insufficient salaries or benefits.⁸⁶ The quality of teachers' early experiences in the classroom also influence their decision to remain in the teaching profession.⁸⁷ In addition, teachers are increasingly concerned about school safety.⁸⁸ With the recent publicity on school violence, many teachers are fearful of violent outbreaks at their own schools.⁸⁹ Reasons for leaving also vary among beginning and veteran teachers, and between urban and rural teachers. These retention issues are addressed in detail below.

Administrative and school support. Lack of administrative support is commonly given as the primary reason for leaving. Teachers feel that they have little power to make decisions about school policy issues, and that the administration does not listen to them. Only one-third of teachers report that they have a good deal of influence over discipline policy, curriculum, and in-service programs. They also feel that they do not have the administration's support when they are faced with criticism from parents or problems with students.

The culture of the typical school also limits teacher support. Teachers traditionally do not collaborate on projects, or review each others' teaching methods. As a result, few schools have organized modes for teachers to interact and share problems. Teachers feel isolated from their colleagues, and do not have opportunities during the school day to discuss common concerns.⁹²

Parental support. A lack of parental support also influences teacher attrition. Many teachers enter the profession with expectations of nonmonetary rewards, including the respect and support of the public. However, public support for teachers has severely declined over the years, as has the status of the teaching profession.⁹³ Numerous surveys indicate that parents and the general public have increasingly negative views of teachers. A significant number of parents report that teachers are only doing a "fair" or "poor" job; and the general public ranks teachers lower in professional status than in social importance.⁹⁴ As a result, a 1992 Metropolitan Life Survey of the American Teacher reported that a significant number of teachers who left the profession cited "lack of support or help for students from their parents" as the primary reason.⁹⁵

Beginning teacher support. Beginning teachers may be particularly vulnerable to public criticism, and general lack of support is of particular concern for this group. New teachers are given the toughest schools and classes, many extracurricular duties, and little or no support.⁹⁶

Salaries and benefits. Although relatively few teachers leaving the profession cite low salaries as their primary reason, the majority of current teachers polled by the USDE in 1991-2 felt that "providing higher salaries or fringe benefits" was the most effective way to improve retention.⁹⁷ In a 1993 study, 14 percent of teachers leaving in 1987-88 reported that they left to pursue other careers, and 6 percent left specifically to improve salary or benefits.⁹⁸ A 1990 study of North Carolina teachers found that "beginning teachers who are paid more stay longer."⁹⁹

Some teacher attrition problems are region-specific. Teachers in urban districts are more likely to cite discipline problems as a reason for leaving. They also give reasons such as the difficulties in coping with their students' problems. Researchers on urban schools¹⁰⁰ note that teachers must be prepared to teach undernourished children of multicultural backgrounds, who have grown up in a habitually violent community. Urban, low-income schools also have older facilities, and less money for up-to-date textbooks and equipment. More teachers leave urban districts after a few years, either for another profession or for a suburban school.¹⁰¹

Rural districts have teachers who plan to teach there only temporarily, or who decide that rural life is not what they want. If they have not grown up in similar communities, they may feel isolated and opt to transfer. Fortunately, many rural teachers are from the area, and have committed to rural life. Urban districts, too, have their share of dedicated teachers who grew up in the neighborhoods where they now teach.

Decreasing the Teacher Shortage

Researchers recommend several ways to address the teacher shortage. In the area of recruitment, they recommend increasing the opportunities for people to obtain teaching credentials and find satisfactory jobs. To address both recruitment and retention, they recommend improving financial incentives and increasing job satisfaction and desirability.

Opportunities to be Credentialed and Hired

Teachers can be recruited at many different age, experience, and career levels. Policy groups suggest expanding recruitment activities, to reach a greater number of high school and early college students, out-of-state teachers, and people in other professions or from other occupations within the education field. They further recommend ensuring that teacher training programs match district needs, and that districts are not hampered in their abilities to hire qualified teachers. In particular, they recommend providing:

- Early opportunities for students to explore teaching interests;
- Alternative credentialing routes for teacher candidates in other occupations;
- Reciprocity agreements with other states;
- Program capacity that matches district hiring needs;
- Methods for districts to hire well-qualified teachers.

Teacher Credential Requirements

Teacher credential requirements are set by the California Commission on Teacher Credentialing (CTC). To apply for a California teaching credential, a candidate must have a Bachelor's degree from an accredited higher education institution; the Bachelor's degree cannot be in Education. Most elementary school teachers obtain their degree in Liberal Studies, and secondary school teachers generally obtain their degree in the subject they intend to teach. If teacher candidates do not receive their degrees from a CTC-approved program in the appropriate subject, they may take a test to prove their subject matter competency. Teacher candidates must also complete a

year-long course in pedagogical techniques, including a semester of student teaching in a K-12 classroom, from a teacher training program accredited by the CTC. The program must recommend the student for a credential.

Traditionally, CSU has interpreted the CTC requirements to mean that a teaching candidate must have completed a bachelor's degree before embarking on pedagogical studies as post-graduate work. There is currently a movement on the part of the CSU system to introduce more flexibility into the program, as private institutions have done.

Early opportunities to explore teaching interests. Researchers¹⁰³ recommend giving students a variety of ways to explore an interest in teaching. Expanded tutoring programs would give college students experience in local schools. At the high school level, "future teacher" clubs and tutoring opportunities could encourage students to consider a career in teaching. These programs may be supplemented by providing teacher education opportunities at the undergraduate level.

Several groups recommend making education courses and student teaching experiences accessible to students early in their college careers. One suggestion is to make teacher education programs more flexible by providing multiple entrance routes. An undergraduate integrated program could be implemented for those who decide to teach early in their college careers, while a one-year graduate program would be maintained for those who decide to do so later. Another option is an undergraduate education minor, to give students early exposure to education courses. In addition, many students in the CSU system spend their first two years at a community college. They could benefit from education courses, or other courses required for a teaching credential, during these first two years. In accordance with these recommendations, the CSU system has recently committed to providing integrated programs at every campus and improving connections with the community colleges. It also plans to streamline and standardize its admissions and transfer procedures across the system.

Alternative routes for teacher candidates. Many people who would like to teach are unable to attend traditional teacher preparation programs. This group of potential teachers tends to be older, already participating in the workforce, and unable to sacrifice the time and money that a traditional program requires. Several education policy groups recommend making courses available during nontraditional hours, such as weekends and evenings. This would allow people already in the workforce to complete their training. 107

For certain teacher candidate groups, alternative credentialing programs, specifically tailored to their experience and time constraints, are recommended. Examples of such programs include paid internships, distance education courses, on and programs with flexible schedules. These specialized programs, already in existence, could be expanded to reach more candidates. In addition, some education schools now provide programs specifically for emergency permit holders. These and other alternative programs offered in California are outlined in Appendix C.

Several groups¹¹¹ also recommend the use of specific programs to encourage education paraprofessionals – teacher aides, assistants, and other educational staff – to become credentialed teachers. These candidates already have experience working with students, and are committed to their local schools. Many of them are bilingual, or are experienced in assisting special education students. Some research¹¹² indicates that paraprofessionals are more likely to be from underrepresented groups. With financial assistance and structured programs, they can translate their education experience into a teaching credential. California currently offers the Paraprofessional Teacher Training Program¹¹³ to a limited number of these applicants (see Appendix C for details).

Reciprocity agreements with other states. Aggressive recruitment in out-of-state education schools could benefit California, as many states have teacher surpluses. Currently, an interstate agreement exists that allows the Commission on Teacher Credentialing (CTC) to waive some credential requirements for out-of-state candidates, but more could be done to encourage migration by easing out-of-state transfer requirements. Reciprocity arrangements with states that meet or exceed California's standards would enable the CTC to simply grant a California teaching credential to teachers from those other states. This issue is being addressed through current legislation.

National Board certified teachers in other states are another potential source. Using additional stipends to attract these teachers, California could provide a credential to any teacher who has been certified by the National Board. Other incentives for veteran out-of-state teachers, such as the transfer of benefit packets or tenure, may also improve California's recruitment abilities. 116

Expanding program capacities. Policy groups¹¹⁷ recommend increasing the number of slots in teacher education programs to match the needs of the local schools. Because there is a greater shortage of math, science, early elementary, special and bilingual education teachers, teacher education institutes may need to expand program capacities disproportionately in these areas.

Education programs must also respond to the changing needs of teacher education students. Many students have difficulties in enrolling in the required courses. Institutes could respond to these needs by offering more classes on evenings and weekends, and by increasing the number of course offerings. Specific suggestions, listed in Appendix C, include alternative program schedules and online services for applicants with emergency permits or strict time and money constraints.

Methods for districts to hire qualified teachers. Cumbersome, lengthy procedures affect the abilities of many districts to make timely offers to teachers. To remedy this, districts could work to streamline their hiring practices. In addition, policy makers could move the date by which teachers must notify districts that they will be leaving. Currently, teachers must notify their districts by July 1. An earlier date would allow districts more time to look for replacements.

Financial Incentives for Teachers to Enter and Remain

The literature recommends various financial incentives for people to enter and remain in teaching. The most common recommendations are:

- Increase loan forgiveness programs for teachers;
- Improve teacher compensation (salary and benefits);
- Institute differential salaries for high need subjects; and
- Reallocate funds between high- and low-wealth schools.

Increasing loan forgiveness programs. Many major reports recommend expanding scholarships and loan forgiveness programs for college students who teach. Such financial incentives, that also require a time commitment, may be particularly effective as a tool for drawing teachers into urban districts and retaining them for several years. California has an Assumption Program of Loans for Education (APLE), which provides conditional warrants for loan forgiveness to college students who agree to teach. Currently, 500 APLE warrants a year are awarded. Legislation addressing APLE expansion is in progress.

Improving teacher compensation. Some academics advocate increasing teacher pay for moral reasons, stating that "this is not because of its potential effect on the labor market. Rather, it is a direct expression of how society values education and teaching." In addition, changes in teacher compensation are commonly recommended as strategies to improve both teacher recruitment and retention.

Some researchers advocate raising teacher salaries, particularly for beginners.¹²² While researchers differ on whether they believe teacher salaries are too low, many agree that raising teacher salaries will improve recruitment. Massachusetts, which has a budget surplus this year, may act on this theory. The State Legislature is considering offering a \$20,000 signing bonus for new teachers.¹²³

Another option, recommended by some authors, ¹²⁴ is to pay a higher salary rate, or provide additional stipends, to teachers in high need subject areas such as math and science. Proponents of this measure claim that graduates with degrees in math or science can expect a higher starting salary in the private sector, and that districts need to offer competitive wages. Los Angeles has addressed one aspect of its teacher shortage in this way, offering a \$5,000 salary differential to teachers who are bilingual. ¹²⁵ Such issues could be addressed at the district level, via collective bargaining agreements. State law does not prohibit salary differentials. ¹²⁶

Some scholars believe that teacher compensation is a bigger issue for retention than recruitment. They claim that teachers do not have salary schedules that keep them in the classrooms; instead, the most experienced teachers become administrators. In addition, the benefits package for public school teachers in California may be a disincentive to remaining in the teaching profession.¹²⁷ Teacher retirement benefits are not comparable to many other state workers in California.¹²⁸ Retirement purchasing power, for instance, is

significantly lower (68.2 vs. 75 percent) for teachers than for other state employees.¹²⁹ Furthermore, California teachers do not pay into Social Security, so they are not eligible for Social Security benefits upon retirement. In order to obtain the full payment, teachers must work for ten years in another occupation. This does not encourage teachers to remain in the classroom for their full career. While young teachers may not consider retirement benefits when entering the field, older teachers may be particularly responsive to such forms of compensation.

Reallocating school funds. Redistributing school funds, to allow low-wealth districts to offer teacher salaries in parity with those in wealthier areas, is advocated by some researchers. Several states have used such a measure as one aspect of a greater reform agenda. Illinois' 1988 Chicago School Reform Act, for instance, included a mandate to equalize base-level funding among the city's schools. Connecticut implemented many reforms in recent years, including a system of redistribution of school funds. Connecticut distributed state funds in such a manner that all districts were able to offer a certain minimum beginning salary. While it is difficult to separate out the effects of redistributing funds from the larger reform package, Connecticut did succeed in eliminating its teacher shortage. This suggestion may have a different implication for California, where district spending per capita is relatively consistent. Teacher salaries do vary, however, and some funding redistribution might reduce such variance.

Methods to Increase Job Satisfaction and Desirability

The recent movement to professionalize teaching has resulted in several recommendations to improve teachers' status and job satisfaction. Specific suggestions have been made to:

- Improve the public perception of teachers;
- Increase the decision-making power of teachers;
- Improve school support for teachers; and
- Develop programs to support new teachers.

Improving public perception of teachers. Several groups have made suggestions for direct measures to raise the status of the teaching profession. Recruiting New Teachers, Inc., a nonprofit group, has done considerable work on this issue at the national level. That entity, in consultation with the California Statewide Task Force on Teacher Recruitment, developed a set of recommendations for improving teacher recruitment. One of the recommendations is to launch a public awareness campaign through public service announcements, media outreach, and informational pamphlets. The theme of the campaign is "Be a hero, be a teacher."

Experienced teachers also complain of a lack of parental or community support. Some researchers 136 suggest providing training to teachers in community outreach, and taking other measures to bring parents into the schools. A more "parent-friendly" environment might increase parental support for both schools and teachers.

Increasing school support for teachers. Of teachers who leave the profession because they are dissatisfied with teaching, the most common reason given for their dissatisfaction is lack of administrative support. Related complaints are a lack of decision making power over school policy issues, and isolation from colleagues. Several researchers suggest ways to improve these factors, such as restructuring schools, professionalizing teaching, and giving teachers leadership or collaborative roles. The National Commission on Teaching and America's Future (NCTAF)¹³⁹ advocates reducing administrative staff, which may necessitate giving teachers a greater role in school governance.

In school restructuring, there is a recent movement towards site-based management, a decentralized model for school governance. The goals of site-based management include the distribution of power, knowledge, and resources to the various stakeholders at each site. Proponents claim that teachers are able to exert significant influence on policy issues. Results from site-based management studies are mixed, but they may hold promise. 140

Professionalization advocates claim that developing new, leadership roles for teachers will enable them to have a greater voice in school decisions, and renew their commitment to teaching. Such changes in teacher roles could be accompanied by appropriate compensation. Teachers, for example, could receive additional stipends for taking on the role of technology expert, or organizing staff development opportunities.

In addition to these movements, many researchers¹⁴² support teacher networks – formalized modes of interaction between teachers with similar interests. These may be created within the school, with other schools, and with universities. With the use of computers at school sites, teachers can join electronic discussion groups and communicate with other classroom teachers and teacher educators. Researchers also advocate giving teachers opportunities throughout the school week to collaborate. This would give teachers the opportunity to discuss common problems, courses, and students, with their colleagues. One policy group¹⁴³ notes that teachers in many countries with high student achievement scores are given a great deal of school time to collaborate.

Supporting new teachers. Research indicates that new teachers suffer the most from lack of support. In addition, the quality of a teacher's early teaching experiences is strongly related to retention. To support and assess new teachers, researchers recommend providing experienced mentors and structured induction programs.¹⁴⁴

Mentoring and other support mechanisms for new teachers have recently grown in popularity. A body of literature devoted to mentoring indicates that beginning teachers with experienced mentors leave at a much lower rate, and are able to focus on student learning much earlier in the year. According to a California study, the combination of first-year mentoring and high-quality, university-based teacher education produces more effective teachers than either method alone. Structured assessments after the first year of teaching also improve teacher retention.

Many researchers¹⁴⁸ advocate moving beyond mentoring to the use of a structured induction program for beginning teachers. Induction programs typically consist of assessment, individual support, extended study, and opportunities for reflection. These programs are particularly important in light of recent studies, which show that the quality of first-year teaching experience is more strongly related to retention than is academic performance or the perceived adequacy of the preparation.¹⁴⁹ California has already instituted a beginning teacher induction program, "Beginning Teacher Support and Assessment" (BTSA). This program has proved successful in retaining teachers, with an attrition rate of 9 percent in five years, versus a rate of 37 percent without BTSA or a similar induction program.¹⁵⁰ A review of the program reported that it virtually eliminates teacher attrition due to feelings of isolation, frustration, or burnout; it is also particularly effective in urban and rural schools.¹⁵¹ Efforts to expand BTSA are currently in progress.

TEACHER EDUCATION AND QUALITY ISSUES

This section addresses the two issues of teacher quality: preparation and professional development. The segment on teacher preparation covers the literature on quality education programs and critiques of current practices. The professional development section also examines current California practices and recommendations from the literature.

Teacher Preparation

The traditional teacher training program in California is a one-year, post-baccalaureate credentialing program in which teacher candidates study education methodology and participate in a semester-long student-teaching experience. A number of alternative programs are also available; these are typically aimed at candidates for whom the traditional program is not suitable. The most common of these programs are described in Appendix C. This section focuses on the training aspects which the literature has identified as modes for improving the quality of teacher training.

The Effects of Quality Preparation

"Teachers who are fully prepared and certified in both their discipline and in education are more highly rated and are more successful with students than are teachers without preparation, and those with greater training . . . are found to be more effective than those with less." 152

Education researchers¹⁵³ emphasize the need for good teacher preparation. They assert that the claim "teachers are born and not made" is a myth, and dangerous to the profession. Their assertion is supported by numerous studies that document the impact of teacher qualifications on student achievement.¹⁵⁴ Based on reviews of "over two hundred studies," the National Commission on Teaching and America's Future (NCTAF) states that substantial evidence confirms that effective teachers not only know their subjects, but they are also familiar with a range of teaching methods, and have an understanding of how people learn.¹⁵⁵ Furthermore,

Studies over the last 30 years consistently show that fully prepared teachers are more highly rated and more effective with students than those whose background lacks one or more of the elements of formal teacher education – subject matter preparation, knowledge about teaching and learning, and guided clinical [student-teaching] experience.¹⁵⁶

While estimates of the proportion of student achievement attributable to teacher qualifications vary,¹⁵⁷ they are consistently above 30 percent. The NCTAF reports that teacher education, ability, and experience appear to be second only to community and environmental factors in influencing student performance.¹⁵⁸ A meta-analysis of 60 studies found that investing in teacher education was by far the most productive for schools, when

compared to lowering pupil-teacher ratios, increasing teachers' salaries, and increasing teacher experience.¹⁵⁹

Qualities of a Strong Teacher Training Program

"Improved teacher education should extend beyond the walls of the university." 160

Many of the teacher education ideals are summed up by John Goodlad, an author and education professor at the University of Washington, who states that the following must be argued for in teacher education:

That there is no place for large lecture classes, that the part of the undergraduate curriculum specifically designed for teachers must not take second-place to the schedule of arts and sciences classes, that a considerable part of the program is best carried out through seminars closely tied to field experiences, that sustained teaching with accompanying reflection constitutes the bulk of the fifth year of preparation, and more. A teacher education program cannot function effectively within the conventional regularities of classes and credits geared to sitting and listening.¹⁶¹

Goodlad's statement addresses many of the factors that researchers believe must be present in a good teacher preparation program. Researchers argue for a teacher education program with:

- The full support of the university, including leadership from the top.
- Collaboration with faculty in other departments.
- Up-to-date curricula taught in exemplary ways.
- Extensive university-district collaboration.
- Integrated student-teaching components.

Areas for Improvement in Teacher Training Programs

Several policy groups, particularly within the California State University system, have provided critiques of current teacher education efforts. These critiques identify ways in which teacher preparation could be strengthened.

University support for teacher education. The CSU Institute for Education Reform underscores the need for a full university commitment to teacher education, beginning with strong leadership from the top. ¹⁶² The Institute and other researchers claim that current teacher training programs are regarded as inferior, relegated to the outskirts of campuses, and isolated from undergraduate subject areas. ¹⁶³ Additionally, criticisms have been leveled at schools of education for their use of part-time or nontenured faculty in teacher training programs, and for hiring faculty without regard to commitment to teacher education. ¹⁶⁴

Collaboration with non-education faculty. Many institutions, particularly in the CSU system, do not have a cohesive strategy for collaboration between subject matter and education faculty. As a result, there is little communication between key players in the Schools of Education and other departments.¹⁶⁵ In addition, subject matter faculty tend to doubt the abilities of teacher education professors.¹⁶⁶ They discard pedagogical theory as of little importance or relevance, arguing instead for greater subject matter study.

As a result, future teachers learn the subject matter that they will teach separately from the methods they will use to teach it. This has particular impact on the new requirements of teachers to introduce technology, such as computers, into the classroom. Currently, "computer education" is a separate, add-on course that teachers must take to receive their professional credential. Teachers, however, are not going to teach "computer education" as a separate course, but will use computers as tools for lessons in literature, history, science, and others. Without collaboration, computer education becomes the province of the education department, and future teachers lose the chance to see such skills modeled in their particular discipline.

Course relevancy and modeled classroom practices. Experienced teachers report that education classes have traditionally been thought of as "throw-away" courses, nothing more than annoyances to be endured. Pedagogical courses are criticized by teachers and researchers as being irrelevant and out-of-date. Most education professors have not taught recently, and school district officials complain that faculty teachings are disconnected from today's classroom experiences and practices. The National Commission on Teaching and America's Future (NCTAF) claims that faculty hold traditional classroom views, which support out-dated practices such as classroom and teacher isolation and low-technology. In addition, the classroom practices modeled by education faculty are not exemplary. Faculty often fail to model the teaching techniques that they instruct their students to use. Future teachers may enter the student-teaching portion of their training without experiencing the learning environment they are expected to create.

University-district collaboration. In 1995, the deans of the top 100 schools of education issued a report stating that "education schools strive so much for academic prestige and credibility within the university that they ignore the real-world needs of teachers and pupils." One researcher and professor of education so been particularly outspoken on this issue, claiming that education reform is pointless if universities do not communicate with schools. The current program is not structured to link teaching theory to concurrent teaching practice, as many researchers recommend. In addition, education faculty generally do not invite school personnel to share their views on what it is important for future teachers to learn.

Integrated student-teaching. Numerous experts in this field emphasize the importance of practical classroom experience.¹⁷³ This is typically accomplished through the "student-teaching" program, in which future teachers spend a semester in a classroom, learning from and working with an experienced "mentor" teacher. "Master" or "mentor" teachers

are assigned to student-teachers to assist them in classes, provide advice and support, and generally orient them to the school setting. Student-teaching gives future teachers the opportunity to practice their skills in a supervised setting, with the assistance of both veteran teachers and education faculty. It also provides valuable first-hand classroom experience, enabling those considering a career in teaching to determine whether they will actually enjoy teaching.¹⁷⁴

The CSU Institute for Education Reform has criticized current student-teacher programs, however, stating:

Cooperating teachers receive little or no compensation, recognition, or training; protocols for cooperating teachers are sometimes nonexistent or disregarded; selection of cooperating teachers is often haphazard; and the university's supervising instructors are spread too thin and have little opportunity to interact with either the student or the cooperating teacher.¹⁷⁵

Another shortcoming of the program, mentioned in recent reports, is that it does not allow for simultaneous learning and practice. Much of the coursework is done in the first semester, followed by a student teaching placement in the second semester. This contrasts with the approach used in some integrated and alternative programs, in which student-teaching experiences occur throughout the year, along with pedagogical studies.

Continuing Professional Development

The most recent set of comprehensive education reforms brought about a change in the perception of teachers. Previous reform efforts ignored the teacher's responsibility, focusing instead on automating teaching and leaving as little as possible to the discretion of the individual teacher. In the 1980's, researchers began to more closely examine the role of the teacher, and proposed the "professionalization" of teaching profession. A decade later, researchers continue to advocate changes. One result of this has been an emphasis on "lifelong learning," or the idea that teachers, like other professionals, must continue to develop and incorporate new ideas and theories. This has prompted a reexamination of continuing teacher development, known as "professional development."

A great deal of professional development consists of in-service workshops – short-term affairs run by school districts. Researchers, however, claim that this type of training is ineffective. This section discusses their recommendations, as well as the difficulties research groups have encountered in documenting and evaluating district practices. In addition, district implementation difficulties are noted.

Qualities of Good Professional Development Programs

"The many failures of this [in-service training] approach to professional development have been carefully documented." 176

The National Foundation for the Improvement of Education (NFIE)¹⁷⁷ has published a major report on professional development. It includes an exhaustive list of qualities which a good program must possess:

The program must offer substantive knowledge; respect teachers' intellect; be genuinely collaborative; last for a substantial, uninterrupted time (at least two weeks); include local, readily available, and structured follow-up; be designed to respond to schoolwide requests and teachers' authority to implement changes on a substantial scale in the school; provide both time and opportunity for teachers to make the transition between what they are learning and how to teach it; allow a period of at least three years between the start of intensive study and expectations for broad-scale implementation in classrooms; and allow even more time before that implementation can be evaluated for its impact on student achievement.¹⁷⁸

Recent reports suggest that good professional development practices have much in common with good teacher preparation. It is important that programs be grounded in learning theories, long-term, and incorporated in the teachers' daily routine. Rather than simply providing workshops to teachers, experts claim that programs that have teacher input or leadership are most effective. These programs should also involve teacher collaboration, networks, and discussion opportunities, in order for teachers to work together and with experts to develop lessons. The environment of collegiality and trust inspired by shared problem solving has also been shown to improve teachers' perceptions of their work conditions. Numerous studies have also shown that intensive, subject specific professional development is effective in improving student achievement.

Current Practices

"Collecting state and district spending information proved to be a difficult task; making connections between these expenditures and any results related to teaching and student learning was impossible." 184

While research into most aspects of teacher education has been voluminous, relatively little is known about professional development. According to several education policy groups, ¹⁸⁵ little research has been done on the efficacy of current practices. In fact, the Education Commission of the States, in its 1997 report, found that few districts evaluate professional development programs for effectiveness. They were able to account for the amount of money spent on professional development, but not for the actual practices, or for the effectiveness of professional development in terms of increasing student achievement. The California State Department of Education also reports difficulties in determining the effect of a particular program on student achievement, given the

numerous other factors involved.¹⁸⁶ The National Commission on Teaching and America's Future (NCTAF) is currently sponsoring a multi-state initiative to examine professional development practices.

California's Requirements

In order to renew the Professional "Clear" Credential, teachers must complete 150 hours of professional development work every five years. This work may include university courses, district workshops, or other seminars and conferences. While development activities are generally handled at the districts' discretion, the state does offer some support and guidance.¹⁸⁷

Challenges to Implementing Good Professional Development Programs

"Sustained, in-depth teacher learning connects directly with student results." 188

While the research on the actual use of professional development is limited, the literature does suggest program qualities which should be effective in improving teaching. However, there are several obstacles that districts must overcome in order to implement quality programs. The most serious of these, according to researchers, are time constraints and inadequate accountability.

Time. According to several sources, the greatest impediment to quality professional development is the lack of time. The type of program advocated by experts requires prolonged, continuous training. With the schedule of most schools, it is virtually impossible to set aside the amount of time required, much less additional time for teacher discussions, during the school year. Because of this and other factors, many districts continue to fund the same professional development activities they always have: generalized, "one-shot" workshops that experts say are the least helpful to teachers. 190

Accountability. Another difficulty faced by districts is the structure of the current professional development requirements. In order to renew a credential, a teacher must complete 150 hours of professional development every five years. However, current requirements are very broadly defined, and do not necessarily limit teachers to activities that would assist them in their current classroom practice. As a result, some teachers may obtain professional development credit for skills that will help them earn degrees in other fields. Even for teachers who do not intend to leave the classroom, professional development credits may be given for unnecessary or unhelpful courses. As noted in several studies, most districts do not link professional development to district goals and student standards. Nor do they evaluate professional development efforts for their effect on student achievement. Experts have suggested that districts do this, and involve teachers actively in the process of selecting professional development activities. 192

Improving Teacher Quality

The quality of teaching depends on a teacher's knowledge of the subject and how to teach it. In order to provide adequate preparation and continued training, researchers recommend methods for improving university-district collaboration and subject-specific training. They suggest the use of comprehensive assessments of both teachers and teacher training institutes, to ensure that beginning teachers have the necessary skills to enter a classroom. For experienced teachers, they recommend incentives to undergo voluntary assessments and measures to evaluate and support struggling teachers.

Collaboration Between Universities and Districts

The need for greater communication with schools has been stressed by many groups. ¹⁹³ Increased collaboration would enable education schools to tailor their programs to the needs of local districts, and to better equip teachers with the skills necessary to succeed in public classrooms. The use of clinical, school-based practice in conjunction with pedagogical teachings would also help student teachers to practice their new knowledge. ¹⁹⁴ For experienced teachers, the chance to collaborate with university faculty and participate in university education courses would have significant professional development benefits.

Learning opportunities for teacher educators and teachers. Researchers suggest promoting collaborative practices by giving education faculty and school districts incentives to participate in teacher preparation, and by providing professional development opportunities at the university for experienced teachers.

One way to encourage collaboration is for the university to place an emphasis on such collaboration in its hiring and rewards structure. Prospective faculty could be asked for a commitment to school collaboration, and education faculty promotions could reflect involvement with local schools, as well as the traditional criteria of research and publications. Once such goals and incentives have been established, universities may examine specific mechanisms for such collaboration. Faculty members could be encouraged, for instance, to use their sabbaticals to teach in a K-12 classroom. In exchange for allowing faculty access to their schools, districts could be given university course credit for their teachers to take professional development classes.¹⁹⁵

Collaboration can also occur on the university campus. One possibility is to invite veteran teachers to participate in university education courses, bringing real world expertise to students. Some universities now use this model, and may even hire an outstanding teacher or district administrator as an adjunct professor.¹⁹⁶

Student-teaching experiences. As mentioned in the previous section, student-teaching is one of the main conduits for university-district collaboration. It is also an integral aspect of teacher preparation. Universities and districts could undertake several actions to

strengthen current student-teaching programs, such as improving mentor selection and training and conforming to district needs.

Researchers suggest improving the methods for selecting and training mentor teachers, and incorporating district schedules and needs into the program. Mentor selection could be improved by stipulating that teachers be chosen on the basis of good classroom practice, not seniority. Too often, districts will "reward" teachers with seniority or burnout by giving them a student teacher to teach some of their classes. This practice shortchanges student teachers, who need the opportunity to observe and learn from an experienced, good teacher. More extensive mentor training would also help teachers understand the mentorship role.

Measures could also be taken to accommodate district needs. For instance, since future teachers will be spending a semester in a classroom, they do so on the district's, not the university's, schedule. Student teachers would be able to experience a full semester with a class, including the orientation provided for new teachers. This would also work to the district's advantage, as the district would not have to develop separate training and introductions for the student teacher.

Professional development schools. Some universities have developed a comprehensive model for incorporating school collaboration. Professional development schools (PDS), analogous to teaching hospitals, provide K-12 settings in which education faculty, teachers, school administrators, and future teachers can work together. University faculty have the opportunity to conduct education research, and veteran teachers learn and incorporate new educational theories and interact with researchers and other teachers. Participants in these schools report an atmosphere of experimentation and dedication to student learning.¹⁹⁷ Student teachers receive on-site instruction from faculty and teach classes under the guidance of experienced mentor teachers.

Professional development schools are advantageous to all participants, and are highly regarded in the education policy arena. A recent study of professional development schools¹⁹⁸ found mostly positive results. The schools provide extensive collaborative opportunities including school faculty teaching in the university, on-site university faculty participation, and open lines of communication between the partners. School teachers were also able to suggest changes in current course content.

The study also found, however, that there are limitations to PDS benefits. Although the PDS program became partially institutionalized after five years, there was little acknowledgment outside of the particular teacher education program in which it was based. Other criticisms of the PDS model are that such schools are expensive and difficult to run, may not include a demographically representative section of California children, and do not change broader preparation practices outside of the PDS. ¹⁹⁹ They require significant time commitments from all parties, and are not of interest to all teachers. ²⁰⁰ For these reasons, universities and districts may want to adapt portions of the PDS model, or

find other methods of collaboration. Much of the current literature also emphasizes a need for multiple regional models, due to the diversity of California's students and schools.

Incorporating Subject-Specific Training

It is important for teachers to know the subject they teach, as well as specific methods for teaching that subject. In order to give prospective and veteran teachers exposure to these skills, researchers recommend improving the communication between education and other university faculty, and offering substantive, subject-specific professional development opportunities.

Increased interdisciplinary faculty communication. Several groups emphasize the importance of leadership from the top, as well as the need to develop structures for communication between education and undergraduate academic faculty. Specific recommendations involve bringing other faculty into teacher preparation, and changing the nature of some of the subject matter coursework for teacher preparation students. While several policy groups have advocated action in these areas, most of the recommendations have been made by CSU affiliates, ²⁰² with reference to the CSU system.

Policy groups recommend several methods for obtaining the cooperation of other faculty. Many researchers²⁰³ advocate the use of integrated programs, lasting about five years, which result in an academic baccalaureate degree and a teaching credential. Such programs necessitate communication between the academic and education faculty teaching the courses. CSU Chico, for instance, has an integrated program that links liberal studies courses with experiences in local schools. Faculty members have the opportunity to connect their coursework to projects and curriculum in the elementary schools. Chico's program is relatively new, with the third year scheduled for fall of 1998. While most institutions do not offer such integrated programs, the CSU has committed to expanding its offerings in the near future.²⁰⁴

CSU groups²⁰⁵ also recommend less comprehensive ways of encouraging interaction between subject matter and education faculty. The most straightforward method proposed is to have one faculty member from each department act as a liaison to the teacher education program. This member could be responsible for subject matter teaching labs, or could provide guest lectures on how to teach a certain subject. Ideally, subject matter faculty would also be involved in the public schools, to gain a better understanding of the classes in which they are preparing teachers to teach.

In addition to recruiting outside faculty members, one group²⁰⁶ suggests modifying current general education courses to provide more flexibility for future teachers. A student who planned to obtain a teaching credential would not take a different or easier course, but might have portions of it modified. For instance, a general biology course could offer, in addition to regular lab work, a biology lab for teachers. This lab would involve going into a high school, and helping teach a biology course. This would have the dual effect of exposing future teachers to classrooms at an early stage in their training and integrating

pedagogy and subject matter into teacher training. This would also address a claim²⁰⁷ that teacher candidates lack basic knowledge about the subject they intend to teach and how to impart that knowledge. A molecular biology major may, for instance, experience considerable difficulty in trying to explain to a seventh grader why plants are green. A teaching lab would allow future teachers to understand what their students will need and expect.

Professional development. Policy groups recommend the use of subject-specific, indepth professional development programs. The California Subject Matter Projects, created by the *Professional Development Act* (SB 1882) in 1988, are the only statesponsored form of collaborative professional development. The Subject Matter Projects are offered through University of California regional sites, in writing, mathematics, science, the arts, literature, foreign language, history-social science, and international studies. The stated mission of the program is:

to improve instruction in all disciplines at all grade levels throughout California. A secondary mission is to establish and sustain a vibrant professional culture of and for teachers, one that provides teachers with ongoing support and opportunities to address the myriad challenges of teaching in California's . . . schools.²⁰⁹

The Projects involve intensive summer sessions, with Saturday sessions, research groups, and other activities throughout the year.²¹⁰ They are highly regarded among the education community, both for the level of instruction and for their role in collaborating with local districts.²¹¹

Assessments of Teachers and Programs

Some researchers question the current assessments used to evaluate teacher preparedness, training quality, and classroom practices. They recommend using more performance-based measures for licensing and preparation programs, rewarding outstanding teachers through voluntary assessments, and reviewing the practices of struggling teachers.

Teacher licensing. Currently, teacher candidates must fulfill certain requirements set by the California Commission on Teacher Credentialing (CTC) in order to obtain a credential. These include a recommendation from the candidate's CTC-approved teacher training institute. The teacher candidate must then pass the California Basic Education Skills Test (CBEST), and demonstrate subject matter competency, either through courses taken (or a major) from a CTC accredited institution, or by passing a test. This results in a Preliminary Teaching Credential, which the teacher may hold for up to two years while taking additional courses in health education, computer education, and mainstreaming students with special needs. After passing these courses, the teacher receives a five-year, renewable, Professional "Clear" Teaching Credential.

There is some debate as to the value of the CBEST as an assessment. Criticism of the CBEST has come mainly in the context of minority recruitment, as minorities tend to pass the test at lower rates. In 1992, several groups of minority educators filed a lawsuit against the State of California, ²¹² alleging that the CBEST discriminated against minority

test takers. Opponents of the test contended that it did not measure teaching skills, and that the breadth of subject matter it covered might be irrelevant for those teaching a single high school subject. The State responded that the CBEST was not intended to measure teaching ability. Rather, it set a minimum threshold to ensure that all teachers possess basic (eighth or tenth grade level) skills in reading, writing, and mathematics. U.S. District Judge William H. Orrick eventually ruled against the plaintiffs, but the CBEST remains a controversial test.

Many researchers²¹³ advocate elevating teacher standards. They argue that rigorous licensing measures will increase the credibility of the field, and also result in improved student performance.²¹⁴ However, others claim that California's newly adopted teaching standards²¹⁵ are high; it is the lack of implementation of these standards that lowers teaching quality. They note that the issuance of emergency permits and waivers reduces teaching quality by allowing basic credentialing requirements to be ignored. They recommend using the California Standards for the Teaching Profession (CSTP) to evaluate the performance of teacher candidates.²¹⁶ This could be done by the teacher training institutes before they make a credential recommendation, or through the licensing assessments.²¹⁷

The most common licensing recommendation from the literature is to incorporate portfolio or performance-based assessments.²¹⁸ This idea is supported by individuals on both sides of the CBEST debate.²¹⁹ Proponents of performance-based assessments claim that such measures would provide a more rigorous and relevant assessment than the current system allows. With these measures, evaluators can examine sample lesson plans, student work, and videotaped classroom lessons to assess a candidate's teaching capabilities. The act of compiling a portfolio is also a valuable lesson for the candidates. Applicants have the opportunity to reflect on their own teaching practices and determine areas for improvement.

Teacher education institute accreditation. Another quality measure for new teachers is the accreditation of their preparation program. In order to obtain a California teaching credential, a teacher must complete a program accredited by the CTC. A preparation program must abide by certain standards, and provide the appropriate courses, to be eligible for accreditation. Reflective of the current trends in teacher assessment, the CTC is moving towards a more performance-based process for program accreditation. ²²⁰

In addition to the mandatory CTC accreditation, the National Council for the Accreditation of Teacher Education (NCATE) also accredits programs, and another national group, the Teacher Education Accreditation Council, 221 is interested in becoming an accrediting body as well. NCATE accreditation is not mandatory, and not all institutions apply. As of October 1997, 19 percent of California teacher education programs were accredited by NCATE. It is also moving towards a more performance-based process for program accreditation. The new NCATE standards will evaluate programs based on the performance of their graduates, rather than on the current

curriculum and other "input" measures. 222 This shift in policy is supported by education researchers and policy groups. 223

Assessments for experienced teachers. Policy groups assert that experienced teachers also benefit from comprehensive assessments of their teaching practices. Such assessments serve two purposes. First, assessments in which teachers voluntarily submit their best work can be used to reward outstanding teachers and encourage good classroom practices. The most commonly recommended support of this nature is National Board Certification, which will be discussed in the following section on professional development opportunities. Second, assessments and reviews of struggling teachers can help them to improve their teaching or leave the profession.

Teacher assessments are typically conducted by the school principal. Alternatively, peer assessment has recently attracted attention as another method. Peer assessment offers teachers the opportunity to review the teaching methods of their colleagues, and provide input into hiring and retention decisions. Advocates of peer review claim that it helps to both improve teachers' practice and to ease teachers out of the profession. The NEA has recently endorsed this practice, and several districts currently use a peer review process.²²⁴

In a typical program, select teachers in the district are trained to assess new teachers and struggling experienced teachers. The teacher assessors may be excused from classroom duties, although they must generally return to the classroom after a set amount of time. This is done to ensure that the role of teacher assessor is not seen as a step towards administrator. Teacher assessors spend considerably more time evaluating a teacher than do principals. They provide support and assistance for classroom teachers, and then make their recommendation to the school district. Advocates claim that there is little difficulty in dismissing a teacher who has received a negative review; union representatives and districts generally abide by the decisions.²²⁵

Opportunities and Incentives for Teacher Growth

Once teachers have entered the profession, they must continue to learn and grow as educators. Researchers have identified program elements that result in teacher growth and increased student achievement. Although high quality programs are available, many teachers are still involved in one-day workshops. To remedy this, researchers recommend incentives for districts to provide quality programs, and incentives for teachers to take advantage of these programs. They also suggest various methods for allotting time to professional development activities.

Offering quality professional development opportunities. Researchers²²⁶ recommend the use of ongoing, subject-specific programs that are teacher-driven and have structured follow-ups. Several professional development activities meet these criteria. One is the Subject Matter Projects developed by the University of California, mentioned in the previous section. Professional Development Schools also offer unique growth opportunities for teachers.

Another framework for quality professional development is the pursuit of National Board Certification. The National Board for Professional Teaching Standards (NBPTS)²²⁷ established in 1994, sets standards for experienced teachers, and certifies teachers who meet these standards. The process is entirely voluntary. The teachers who pass, according to the National Board:

- are committed to students and their learning;
- know the subjects they teach and how to teach those subjects to students;
- are responsible for managing and monitoring student learning;
- think systematically about their practice and learn from experience;
- are members of learning communities.

Certification is available in a number of specialties, and is open to anyone with three years' teaching experience and a BA from an accredited institution. The assessment is a rigorous, year-long process, composed of a school-site portfolio and exercises completed at the National Board site. There is a \$2,000 fee for the assessment, and additional time and resources must be invested in compiling the portfolio and preparing for the exams. While other groups, such as the Interstate New Teacher Assessment and Support Consortium (INTASC),²²⁸ set standards for beginners, the National Board offers a benchmark for experienced teachers. As of December 1997, California had 69 National Board Certified teachers.²²⁹

Encouraging districts to offer quality professional development. The institutions that provide professional development must have incentives to provide quality programs. The CSU Institute for Education Reform suggests linking state funding or district accreditation to good professional development programs.²³⁰ An oversight body would first have to determine an objective way to evaluate such programs, something with which previous groups have struggled.²³¹ Another recommended method is to offer challenge grants to colleges to develop professional development programs with schools.²³² This would have the advantage of encouraging formal collaboration between universities and schools.

Once districts or universities are willing to look for quality programs, the state can provide assistance in locating them. The National Foundation for the Improvement of Education (NFIE) suggests creating a national (or statewide) institute of professional development. The institute would consist of teachers' organizations, professional associations, and academics, and would work to support teacher networks and best practices. Agreements for exchange of services are another way to make professional development available to teachers. Ohio State University, for example, provides credit for teachers to take university courses, in exchange for allowing faculty and students to conduct research or fieldwork in public schools. 234

Encouraging teachers to participate in quality professional development. Researchers also recommend providing incentives for teachers to take advantage of more substantive programs. he National Foundation for the Improvement of Education (NFIE) reports that most teachers are motivated by improving student learning, not money, so external rewards may not be the most effective method. One suggestion, however, is to link

district goals and standards to salary schedules.²³⁵ Appropriate professional development activities could be rewarded through increased salaries or awards for desirable skills.

Some researchers recommend changing the salary schedule format. The current system, which was established in the 1920's, allots salary increases to teachers based on objective criteria such as advanced degrees, education credits, and years of experience.²³⁶ Some groups²³⁷ maintain that it does not specifically reward teachers for developing skills valued by the district, or for improving student achievement. Instead, they suggest using skill or competency-based pay. Districts would be able to dictate which skills they wanted teachers to acquire, and allot salary increases accordingly. One way to do this would be to link pay raises to progress towards National Board certification. The certification process, which has several steps, would lend itself well to this.

Policy groups also recommend providing incentives for teachers to pursue National Board Certification. These include stipends to cover the application fee and preparation time, and leadership roles or salary increases for those teachers who achieve certification. At least 26 states, including California, have provided some incentives. In North Carolina, teachers with National Board certification earn a 12 percent raise, and Ohio, Maryland, and other states provide fee incentives or salary increases.²³⁸

Several California school districts provide stipends or other incentives that may be worth exploring at a statewide level.²³⁹ Glendale and Piedmont Unified School Districts both offer stipends to teachers who achieve National Board Certification; Glendale, in an agreement with the Glendale Teachers Association, provides a one-time \$7,000 stipend, and Piedmont offers a \$500 annual stipend. The Los Angeles Unified School District may soon offer teachers a 15 percent salary increase for National Board Certification. The Santa Paula Elementary School District, in Ventura, has the most comprehensive incentive system. The district pays 50 percent of the National Board application fee, and reimburses the teacher for the remaining half upon certification. Once certified, National Board teachers receive an annual stipend of \$2,500. The Walnut Valley Unified School District also reimburses teachers for the fee upon completion of the assessment process.

Finding time for professional development. The National Staff Development Council (NSDC), in 1996, called for "25% of educator's work time [to be] devoted to learning and collaboration with colleagues." Suggestions for making this time available include rearranging the school week, using substitutes to cover class periods, and extending the school year or professional development time for teachers.

The school schedule could be rearranged by lengthening the school day four days a week, and providing an early release day for students on the fifth day.²⁴¹ Block scheduling or other methods of reorganizing the school day are another way to obtain larger blocks of time for teacher learning.²⁴² Within existing school arrangements, scheduling common planning periods for teachers with similar classes would give teachers the opportunity to collaborate.²⁴³

Another solution is to replace teachers in the classroom for a certain number of hours or days, allowing them time to participate in professional development.²⁴⁴ This could be accomplished using teacher aides, interns, parents, or administrators to cover classes, or budgeting for a certain number of days for substitute teachers.²⁴⁵

Lastly, the California State University, Sacramento and the University of California, Davis, have developed a model that could be extended to professional development. The two institutions jointly provide classes for emergency credentialed teachers, offering more flexible times than those traditionally available.²⁴⁶ The National Foundation for the Improvement of Education (NFIE) and CSU both suggest an extended school year for teachers, which would allow for intensive professional development when students are not in class.²⁴⁷

POLICY OPTIONS FOR CONSIDERATION

While the shortage of quality teachers cannot be completely eliminated through legislation, policy makers can have a significant impact on the problem. Many pieces of legislation in the 1997-98 session addressed teacher shortage and quality issues. (For a topical list, please see Appendix A.) The following options are those recommendations from the literature that do not repeat recent legislative efforts.

Reducing the Teacher Shortage

It is estimated that California will need to hire between 260,000 and 300,000 new teachers in the next ten years.²⁴⁸ To address this need, California can improve both its recruitment options and the retention rate of current teachers. To increase the supply of new teachers, policy makers can further increase credential opportunities and expand recruitment efforts for undergraduate and high school students. They could also improve district hiring abilities. Both recruitment and retention issues could be addressed through various financial incentives for teachers. In addition, policy makers could improve teacher retention by enacting measures to increase support for teachers. These options are discussed in detail below.

Increasing credential opportunities. As California hires a greater proportion of first-time teachers each year, the need for new sources of teachers will increase. Currently, the CSU system trains almost 60 percent of California's teachers, recommending approximately 12,000 program graduates for credentials each year.²⁴⁹ California State University recently set a goal of increasing this number to 15,000 by July of 2000.²⁵⁰ The Legislature may wish to examine ways to support and extend such expansion.

Many people interested in teaching do not have the time or resources to enter a traditional, year-long credentialing program. Such potential teachers are typically already in the labor force, either in other occupations or working elsewhere in the education field. To accommodate these candidates, there are several types of alternative programs now in use (see Appendix C for more detail on these programs). The Legislature may wish to consider further expanding alternative programs for emergency permit holders, mid-career changers, and education paraprofessionals, beyond current legislation.

Expanding undergraduate recruitment. While some people do not decide until after they graduate from college that they wish to teach, others enter college already considering a career in teaching. A few universities have responded to the needs of this group by offering five-year integrated programs (see "Teacher Shortage Issues" for more detail). Students enter as undergraduates, and receive both a bachelor's degree and a recommendation for a teaching credential upon completion of the program. Less comprehensive methods of stimulating interest in teaching include opportunities for undergraduates to tutor K-12 students or assist in K-12 classrooms. The Legislature may wish to consider expanding grant opportunities for universities to develop integrated programs or other options for undergraduates interested in pursuing careers in teaching.

Increasing pre-collegiate recruitment. Legislation introduced in the 1997-98 session significantly expanded the recruitment pathways for people who are already in the workforce. It is also important, however, to encourage younger students to consider careers in teaching. Some high schools have developed "future teacher" clubs, which provide information and support for high school students who are interested in teaching. ²⁵¹ High school students may also be given opportunities to assist in elementary schools. The Legislature may wish to encourage these activities by providing grants for "future teacher" programs, either to high schools or to consortia of high schools and universities.

Improving district abilities to recruit teachers. School districts are sometimes hampered in their abilities to recruit teachers. Problems may arise from cumbersome hiring procedures and deadlines, or from compensation and working conditions offered to teachers. Non-suburban, small, and low-wealth schools generally have more hiring difficulties (see "Teacher Shortage Issues" for more details). These difficulties are exacerbated by hiring procedures, such as a policy that allows teachers to wait until July 1 to declare their intent to stay in a school (see "Teacher Shortage Issues" for more details).

To alleviate these problems, the Legislature may wish to examine ways to streamline district hiring procedures. It may also wish to move the date by which teachers must declare their intent to stay from July 1 to June 1, to give districts more time to hire new teachers. A current bill, AB 2647 (Pacheco), would move this date to April 30 for teachers in year-round schools.

Improving financial incentives for teachers. Some policy groups claim that teacher compensation is inadequate, or that improving compensation would aid teacher recruitment and retention efforts (see "Teacher Shortage Issues" for more details). The 1998-99 Budget and related bills, as they are currently amended, would raise the minimum salary for a beginning teacher and expand the Assumption Program for Loans for Education (APLE) (see Appendix A for details). In addition, the Legislature may wish to further expand APLE, or invest in similar programs. The Legislature may also wish to study the relationship between teacher salaries and benefits and the entrance and attrition rates of teachers. It may wish to examine teacher retirement benefits as well.

The Legislature may also wish to examine the financial bonuses that other states are using to attract teachers. Baltimore, Maryland offers \$5,000 housing bonuses to new teachers, and even greater bonuses if they are willing to work in "rough areas." There are several proposals for teacher bonuses under consideration in Massachusetts, which has a budget surplus this year. Such proposals include a bill, mentioned earlier, to award \$20,000 signing bonuses to 250 new teachers in the state. 253

Increasing support for teachers. Nationally, approximately five percent of teachers left the profession in the 1994-95 school year for reasons other than retirement, and approximately seven percent move to other schools. Teachers cite lack of administrative and parental support as significant factors in their decision to leave (see "Teacher

Shortage Issues" for more details). To encourage teacher support, the Legislature may wish to provide grants to districts to develop innovative school structures. These structures could include greater leadership roles for teachers and extensive collaboration with the community. The Legislature may also wish to study schools in which teachers report feeling well supported.

Researchers also report that mentoring and induction programs greatly improve the retention rate of beginning teachers. The 1998-99 Budget, as currently amended, would provide full funding for the Beginning Teacher Support and Assessment (BTSA) induction program. The Legislature may wish to continue funding the BTSA program in subsequent years, as it has been shown to improve beginning teacher retention.

Improving Teacher Quality

In addition combating the teacher shortage, California can improve the overall quality of its teaching force. Options for improvement include improving both the initial preparation for teachers and continuing professional development. Specifically, the State could take action to increase the relevancy of teacher education, improve professional development offerings, and dismiss teachers who are unsuited to the profession. These options are described in detail below.

Increasing teacher education relevancy. One of the greatest criticisms of teacher education programs is that they provide irrelevant coursework and are out of touch with actual school needs. Policy groups recommend increasing the relevancy of teacher education through greater collaboration with district and other university faculty (see "Teacher Education and Quality Issues" for more details). To accomplish this, the Legislature may wish to require the California State University System to report on collaborative efforts with local schools. The Legislature may also wish to expand grants for integrated undergraduate programs, as discussed earlier.

Improving teacher preparation assessment. Some researchers claim that the licensing requirements and examinations for teachers do not measure the skills and knowledge a teacher should possess (see "Teacher Education and Quality Issues" for details). They advocate performance-based measures such as a portfolio of a candidate's sample lesson plans and collected student work, or a videotaped sample lesson. Senate Bill 2042 (Alpert & Mazzoni) addresses the use of performance-based assessments (see Appendix A). The Legislature may also wish to direct the CTC to study the possibility of evaluating teacher education institutes on the demonstrated preparedness of their graduates.

Encouraging good professional development. Many criticisms have been made of the inservice teacher workshops that constitute a significant portion of teacher development (see "Teacher Education and Quality Issues" for details). Researchers recommend the use of substantive, subject-specific programs that are ongoing and allow for teacher input and collaboration. To encourage these types of programs, the Legislature may wish to allot challenge grants to universities that provide professional development programs to

schools. The Legislature may also wish to create a state-wide institute for professional development, to disseminate information on best practices in the field. To encourage teachers to partake in quality professional development, the Legislature may wish to provide additional financial incentives for teachers who achieve National Board certification.

One barrier to the use of quality professional development is a lack of sufficient time (see "Challenges to Implementing Good Professional Development Programs"). The Legislature may wish to consider lengthening the school year for teachers, to provide additional blocks of time for professional development. This could enable teachers to participate in professional development programs or teacher networks throughout the year, without detracting from classroom time.

Difficulties have also arisen in the evaluation of professional development programs. The Education Commission of the States reported that districts do not systematically assess their programs for impact on student achievement (see "Continuing Professional Development" for details). Because of this, the Legislature may wish to direct the appropriate entity to develop evaluation guidelines for professional development.

Dismissing incompetent teachers. Developing a quality teaching force necessitates the removal of teachers who are incompetent or unsuited for teaching. While dismissals have traditionally been under the purview of the school principal, peer assessments have recently grown in popularity. Such assessments typically involve the review of a teacher's classroom practices by an experienced, specially trained peer (see "Improving Teacher Quality" for more details). Proponents of peer review claim that it helps struggling teachers to improve and facilitates the dismissal of unsuitable teachers. The Legislature may wish to study the recent peer review efforts, to determine best practices in this area.

APPENDIX A: LEGISLATIVE ACTION DURING THE 1997-98 SESSION

Recruitment and Hiring

Recruitment

General

- **Chapter 864, Statutes of 1997 (Greene)** Expands teacher recruitment efforts in California; creates a California Center on Teaching Careers (CalTeach, run by the CSU Institute for Education Reform, with locations at CSU Sacramento and CSU Long Beach).
- **AB 496 (Lempert)** Would establish and fund the California Mathematics Initiative for Teaching, a program administered by the CTC to provide grants to local education agencies (LEA's) to enable current and prospective teachers to meet mathematics teaching credential standards. *In Senate Appropriations as of July 31, 1998.*
- **AB 2034 (Wildman)** Would state the intent of the Legislature that all institutions offering teacher training programs take steps to recruit a sufficient number of individuals to address the shortage of teachers. Would require the CTC to study the effectiveness of current teacher recruitment programs. *Introduced, dropped by author.*
- **ACR 81 (Scott)** Would require CSU to report the Legislature by 1/30/99 on its teacher preparation programs, including efforts to increase capacity. *In Senate as of July 22, 1998.*

Undergraduate Students

- **AB 496 (Lempert)** Would raise the limit under the Assumption Program of Loans for Education (APLE) from 500 to 4,500 participants; would require that a minimum of 2,000 awards be given to participants who agree to obtain a mathematics or science teaching credential. (This measure is fully funded in the current amendment of the 1998-99 Budget Act.) *In Senate Appropriations as of July 31, 1998.*
- **AB 2528 (Ducheny)** Would make work-study funding available to offer tutorial or student outreach activities to pupils in grades 4 to 10; would require that priority be given to 1,500 work-study positions for this purpose. *In Senate Appropriations as of July 17, 1998.*
- **Governor's Proposed 1998-99 Budget** Would provide \$1.5 million to develop the UC Math and Science Intern Program. The program would bring math and science students at the UC campuses into local schools through teaching internships.

Out-of-State Teachers

- **Chapter 628, Statutes of 1997 (Pacheco)** Requires the CTC to issue a four-year waiver for subject matter competence and other elements to applicants who have completed teacher preparation and taught in other states.
- **AB 858 (Davis)** Would require that a teacher who is licensed to teach in another state and who is certified by the National Board for Professional Teaching Standards be issued a clear teaching credential in their certified subject. *In Senate Appropriations as of July 31, 1998.*
- AB 1620 (Scott) Would establish new standards and procedures for the issuance of California teaching credentials to out-of-state credentialed teachers. Would require the CTC to conduct periodic reviews and initiate reciprocity negotiations with those states having comparable and equivalent standards to those of California. In Senate as of July 24, 1998. (Both Houses have approved funding in the 1998-99 Budget.)

Education Paraprofessionals

- **Chapter 737, Statues of 1997 (Scott)** Expands and modifies the Paraprofessional Teacher Training Program and creates a loan assumption program.
- **Chapter 831, Statues of 1997 (Wildman)** Expands the Paraprofessional Teacher Training Program.
- **1998-99 Budget Act** would increase funding for the Paraprofessional Teacher Training Program by \$10 million. (*This item is subject to approval by the Governor.*)

Hiring

Class-Size Reduction

Chapter 1, Statutes of 1997 (Mazzoni) Allows the provisions of an earlier bill, AB 1068 (Mazzoni), Chapter 948, Statutes of 1996, to be operative. Provides that, if a district finds it necessary to employ a retired teacher to meet the objectives of Class Size Reduction and other conditions, the teacher's earnings will be exempt from specified provisions of the law until July 1, 1999.

Distribution of Teachers

- **AB 2015** (Wright) Would require school districts to make reasonable efforts to ensure that experienced and inexperienced teachers are justifiably distributed within each district. *In Senate Appropriations as of July 31, 1998*.
- **AB 2647 (Pacheco)** Would move the date by which a school district employee in a year-round school must declare intent to stay from July 1 to June 1. *In Senate as of July 7, 1998.*

Limited English Proficiency

AB 861 (Ducheny) Would require districts to hire only teachers with CLAD/BCLAD certification. *Governor's veto stricken from file.*

Preparation Programs and Assessments

Non-traditional Preparation

Integrated Programs

- **AB 860 (Ducheny)** Would require the Superintendent of Public Instruction to establish and administer a program whereby a collaborating university and school district may exchange the services of their faculty. *In Senate Appropriations as of July 31, 1998.*
- **SB 2042** (**Alpert & Mazzoni**) Would require the CTC to encourage teacher education institutes to offer undergraduate minors and integrated programs in education. *In Assembly Appropriations, placed on suspense file as of July 29, 1998.*
- **1998-99 Budget Act** Would provide grants to colleges and universities to offer an integrated program option. *Funding will be resolved by Budget Conference Committee*.

Alternative Routes

- **Chapter 1, Statutes of 1997 (Mazzoni)** Allows the provisions of an earlier bill, AB 1068 (Mazzoni), Chapter 948, Statutes of 1996, to be operative. Increases the funding for alternative programs.
- **1998-99 Budget Act** Would increase funding to \$11 million for university and district intern programs.
- **AB 173 (Aguiar)** Would create a new Alternative Teacher Intern Program (a multiyear program culminating in a two year paid internship) not governed by traditional teacher preparation requirements. *Governor's veto stricken from file*.
- **AB 2042** (**Alpert & Mazzoni**) Would require the CTC to eliminate the fifth-year program requirement for any candidate who has completed an in induction program that has been approved for a professional clear credential. . *In Assembly Appropriations, placed on suspense file as of July 29, 1998.*

AB 2730 (Mazzoni) Would require the CTC to establish a pilot program to improve accreditation review of nontraditional teacher preparation programs; would require the CTC to report the results to the Legislature, including instances of program termination. Would appropriate funds from the Teacher Credential Fund. *In Senate as of July 29, 1998*.

Emergency Permits

Chapter 934, Statutes of 1997 (Scott) Creates the Pre-Internship Teaching Program to replace, when funding permits, the Emergency Teaching Permits.

1998-99 Budget Act would increase funding for the Pre-Intern Program by \$8 million.

Traditional Preparation

Specific Subjects

AB 2442 (Mazzoni) Would enact the Standards-based Mathematics Staff Development Act of 1998. Would require the State Department of Education to administer a program of grants to school districts and county offices of education for fees and material costs for mathematics teachers of pupils in grades 4 to 12, inclusive, to take mathematics courses at accredited institutions of higher education. Joined to AB 1331 (Alquist). *In Senate Appropriations as of July 3, 1998*

Specific Techniques

- **AB 285 (Honda)** Would require training for teachers in domestic violence recognition and prevention. Would appropriate funds from the General Fund. *In Senate as of July 16, 1998.*
- AB 861 (Ducheny) Would require teacher preparation programs to offer courses leading to CLAD/BCLAD certification. Would modify, reactivate, and rename the State Bilingual Teacher Training Assistance Program; would change the program focus to providing professional development for teachers and teacher candidates seeking CLAD/BCLAD certification. *Governor's veto stricken from the file*.
- **AB 2637** (Mazzoni) Would require the CTC to review the multiple subject credential requirements to ensure that elementary teachers receive developmentally-appropriate teaching methods for kindergarten and grades 1 to 3. *In Assembly, concurrence in Senate amendments pending, as of July 17, 1998.*
- **AB 2748** (Mazzoni) Would require an applicant for a specialist teaching credential in special education to demonstrate passage of the reading competency test. *To enrollment as of July 31, 1998.*
- **SB 217 (Greene)** Would direct the CTC to implement the policy recommendations resulting from its critical thinking study (extent to which teacher training programs prepare candidates to teach critical thinking and problem-solving skills to pupils in kindergarten and grades 1 to 12). *Returned to Secretary of Senate.*

Technology

- **Chapter 404, Statutes of 1997 (Mazzoni)** Requires teacher applicants to demonstrate competence in the use of computers in the classroom
- **SB 613** (**Polanco**) Would require the implementation of technology-based content and performance standards for use in setting policies for preparing, hiring, evaluating, and promoting teachers and school administrators. *Returned to Secretary of Senate.*

Assessments

Preparation

SB 2042 (**Alpert & Mazzoni**) Would require, subject to budgetary appropriations, that teacher preparation programs administer teaching performance assessments linked to the California Standards for the Teaching Profession. (*Funding will be resolved by the Budget Conference Committee.*). In Assembly Appropriations, placed on suspense file as of July 29, 1998.

Licensure Requirements

- Chapter 1, Statutes of 1997 (Mazzoni) Allows the provisions of an earlier bill, AB 1068 (Mazzoni), Chapter 948, Statutes of 1996, to become operative. States that persons employed for purposes of Class Size Reduction be required to pass the state California Basic Standards Test (CBST), but not be required to pass a basic skills exam developed and administered by the district offering the employment.
- **Chapter 344, Statutes of 1997 (Thompson)** Prohibits emergency permits from being renewed more than four times.
- **AB 787 (Wildman)** Would have prevented school governing boards from authorizing teachers with multi-subject credentials to teach in departmentalized classes below grade 9. *Died*
- **AB 1456** (Wright) Would prohibit the CTC from granting any credential waiver after June 30, 2001. Joined to AB 861 (Ducheny). *Governor's veto stricken from file*.
- **AB 1620 (Scott)** Would have the CTC establish preliminary and professional standards for multi-subject credentials. *In Senate as of July 24, 1998.*
- **AB 2233 (Honda)** Would phase out the authority of the CTC to waive the requirements for teaching credentials. *In Senate Appropriations as of July 31, 1998.*
- **SB 600 (Karnette)** Would have prohibited the CTC from waiving the basic skills and academic degree requirements for emergency credentials after June 30, 1998. *Returned to Secretary of Senate.*
- **SB 1867** (**Hughes**) Would require the CTC to develop recommendations on alternate ways to satisfy the state basic skills proficiency test requirement for persons who fail one or more components of that test (the CBEST). Would require the CTC to report to the Legislature by December 1, 1999 on these recommendations and on the passage rates for the CBEST by race, gender, age, type of credential sought, teacher preparation institution and other relevant categories as determined by CTC. *In Senate Appropriations as of July 1998*.
- SB 1906 (Haynes) Would prohibit a school district from hiring a certificated person unless that person has demonstrated an "ability to speak fluently and write competently in the English language." Would require the CTC to adopt language assessment evaluation criteria or examinations. *In Senate Education Committee as of July, 1998.*
- **SB 1960 (Karnette)** Would require every charter school to meet the teacher credentialing requirements by January 1, 2000. *In Senate Education Committee as of July 1998*.

Retention, Working Conditions, and Professional Development

Retention

General

Chapter 138, Statutes of 1997 (Leach) Counts the years served in a university intern position towards acquiring tenure.

Beginning Teacher Support & Assessment (BTSA) **Chapter 937, Statutes of 1997 (Mazzoni)** Provides for statewide expansion of the Beginning Teacher Support and Assessment (BTSA) Program.

SB 2042 (Alpert & Mazzoni) Would require the CTC to provide an induction program for every beginning teacher in the state. (Funded in the 1998-99 Budget Act.) In Assembly Appropriations, placed on suspense file as of July 29, 1998.

Working Conditions

Community Support/Outreach

AB 1665 (**Torlakson**) Would provide that the parents and guardians of pupils have the responsibility to work together in a mutually supportive and respectful partnership with schools; would require the governing board of a school district to adopt a policy that provides for the joint development with parents and guardians of a pupil-school-parent compact. Would require professional development programs to include instruction on how teachers, administrators, and other school staff can work collaboratively with families to ensure that pupils succeed in school. *In Senate Appropriations as of July 17, 1998*.

Teacher Compensation

- **AB 2489 (Mazzoni)** Would, subject to the appropriation of funds, require the CTC to administer a project of grants to school districts and county offices of education for the purpose of developing innovative salary schedules for certificated employees. *In Assembly Appropriations, held under submission*.
- **SB 12 (O'Connell)** Would raise the lowest salary on the salary schedule for certificated teachers to "an amount not to exceed an annual salary of thirty-two thousand five hundred dollars (\$32,500) in the 1998-99 fiscal year [and] thirty-five thousand dollars (\$35,000) for the 1999-2000 fiscal year." *In Assembly Appropriations as of July 30, 1998.*

Professional Development

General

- **AB 1734** (Mazzoni) Would make changes in the governance structure and modify the purpose of the California Subject Matter Projects administered by the UC system. (Funding for these projects was reinstated in the May revise of the Governor's 1998-99 Budget Proposal.) *In Senate Appropriations as of July 17, 1998*.
- **SB 1932 (Johnston)** Would appropriate funds to develop a statewide clearinghouse for materials from the Center for Education Excellence, a collaborative program established by the Sacramento City Unified School District and the Sacramento City Teachers Association, to respond to the particular educational challenges facing urban pupils. *In Assembly as of July 21, 1998*.
- **AB 1936 (Honda)** Would express the intent of the Legislature to provide funding for training, support, and evaluation of middle school teachers assigned to teach core subjects. *In Assembly Appropriations, held under submission as of July 1998.*
- **AB 2637 (Mazzoni)** Would encourage the Superintendent of Public Instruction to include training in developmentally-appropriate teaching methods for kindergarten and grades 1 to 3. *In Assembly, concurrence in Senate amendments pending as of July 17, 1998.*

Reading Programs

Chapter 286, Statutes of 1997 (Mazzoni) Establishes a Teacher Reading Instruction Development Program for in-service training for teachers in grades 4 to 8.

Mathematics Programs

- **AB 496 (Lempert)** Would require the CTC to establish standards for supplementary authorizations in mathematics and to develop criteria for distributing financial assistance to teachers to assist them in meeting these standards. *In Senate Appropriations as of July 31, 1998.*
- **AB 1331 (Alquist)** Would establish a program of grants to school districts and county offices of education to provide in-service training in mathematics for teachers of pupils in grades 4 through 12. Joined to AB 2442. *In Senate Appropriations as of July 31, 1998.*
- **AB 1626** (**Alquist**) Would create a pilot program that would, in part, provide inservice training in math for teachers in an intensive summer school setting. *In Senate Appropriations as of July 17, 1998.*

AB 2442 (Mazzoni) Would create a grant program to reimburse school districts and county offices of education for costs for teachers to take math courses. Joined to AB 1331. *In Senate Appropriations as of July 3, 1998.*

Technology

- **AB 1339 (Knox)** Regarding allocation and use of funds appropriated for the Education Technology Staff Development Program. Would require the State Department of Education to monitor the program to ensure that an equitable share of the funding serves low-income disadvantaged pupils. *In Senate as of July 9, 1998.*
- AB 1932 (Mazzoni) Would establish the Technology Leadership Demonstration Loan Program. Would require the CTC to develop standards of competency to evaluate teachers in education technology areas. Would require the State Department of Education to administer the program; would require the Superintendent of Public Instruction to design and conduct an evaluation of the program and report to the Legislature on the program's effectiveness. *In Assembly Committee on Information Technology as of July 1998*.
- **SB 613 (Polanco)** Would require the implementation of technology-based content and performance standards for use in setting policies for preparing, hiring, evaluating, and promoting teachers and school administrators. *Returned to Secretary of Senate.*

Cultural/Language Diversity

- **AB 861 (Ducheny)** Would modify, reactivate, and rename the State Bilingual Teacher Training Assistance Program; would change the program focus to providing professional development for teachers and teacher candidates seeking CLAD/BCLAD certification. *Governor's veto stricken from file*.
- **AB 1665 (Torlakson)** Would require professional development programs to include instruction relating to the diversity of the cultures and lifestyles of the families of the community served by the school district. *In Senate Appropriations as of July 17, 1998.*

Time

- **AB 2380 (Frusetta)** Would declare the intent of the Legislature to enact provisions reforming public school instructional time and staff requirements. *In Assembly Education Committee as of July 1998.*
- **SB 1912** (Schiff) Would modify the Staff Development Buyout Program. *In Assembly Appropriations, placed on suspense file as of July 17, 1998.*

Standards

SB 2042 (**Alpert & Mazzoni**) Would require the CTC to implement unifying standards for teacher development, including continuing growth, that are aligned with new standards for student performance. *In Assembly Appropriations, placed on suspense file as of July 29, 1998.*

National Board Certification

- **AB 858 (Davis)** Would establish a program to provide grants to school districts for the purpose of providing one-time \$10,000 merit awards to California public school teachers who achieve National Board Certification. Would state the intent of the Legislature to appropriate funding in the annual Budget Act. *In Senate Appropriations as of July 31, 1998.*
- **Governor's Proposed 1998-99 Budget** Would provide \$1 million to award to teachers who achieve National Board Certification.

APPENDIX B: TEACHING STANDARDS

The Interstate New Teacher Assessment and Support Consortium (INTASC) Standards

The following section has been abstracted from the University of Maryland Website.²⁵⁴

Principle #1: The teacher understands the central concept, tools of inquiry, and structures of the discipline(s) he or she teaches and can create learning experiences that make these aspects of subject matter meaningful for students

Principle #2: The teacher understands how children learn and develop, and can provide learning opportunities that support their intellectual, social and personal development.

Principle #3: The teacher understands how students differ in their approaches to learning and creates instructional opportunities that are adapted to diverse learners.

Principle #4: The teacher understands and uses a variety of instructional strategies to encourage students' development of critical thinking, problem solving, and performance skills.

Principle #5: The teacher uses an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation.

Principle #6: The teacher uses knowledge of effective verbal, nonverbal, and media communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom.

Principle #7: The teacher plans instruction based upon knowledge of subject matter, students, the community, and curriculum goals.

Principle #8: The teacher understands and uses formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social, and physical development of the learner.

Principle #9: The teacher is a reflective practitioner who continually evaluates the effects of [his]/her choices and actions on others (students, parents, and other professional in the learning community) and who actively seeks out opportunities to grow professionally.

Principle #10: The teacher fosters relationships with school colleagues, parents, and agencies in the larger community to support students learning and well-being.

California Standards for the Teaching Profession

The following section has been abstracted from the California Commission on Teacher Credentialing Website.²⁵⁵

1. Standard for engaging and supporting all students in learning

Teachers build on students' prior knowledge, life experience, and interests to achieve learning goals for all students. Teachers use a variety of instructional strategies and resources that respond to students' diverse needs. Teachers facilitate challenging learning experiences for all students in environments that promote autonomy, interaction and choice. Teachers actively engage all students in problem solving and critical thinking within and across subject matter areas. Concepts and skills are taught in ways that encourage students to apply them in real-life contexts that make subject matter meaningful. Teachers assist all students to become self-directed learners who are able to demonstrate, articulate, and evaluate what they learn.

2. Standard for creating and maintaining effective environments for student learning

Teachers create physical environments that engage all students in purposeful learning activities and encourage constructive interactions among students. Teachers maintain safe learning environments in which all students are treated fairly and respectfully as they assume responsibility for themselves and one another. Teachers encourage all students to participate in making decisions and in working independently and collaboratively. Expectations for student behavior are established early, clearly understood, and consistently maintained. Teachers make effective use of instructional time as they implement class procedures and routines.

3. Standard for understanding and organizing subject matter for student learning

Teachers exhibit strong working knowledge of subject matter and student development. Teachers organize curriculum to facilitate students' understanding of the central themes, concepts, and skills in the subject area. Teachers interrelate ideas and information within and across curricular areas to extend students' understanding. Teachers use their knowledge of student development, subject matter, instructional resources and teaching strategies to make subject matter accessible to all students.

4. Standard for planning instruction and designing learning experiences for all students

Teachers plan instruction that draws on and values students' backgrounds, prior knowledge, and interests. Teachers establish challenging learning goals for all students based on student experience, language, development, and home and school expectations. Teachers sequence curriculum and design long-term and short-range plans that incorporate subject matter knowledge, reflect grade-level curriculum expectations, and include a repertoire of instructional strategies. Teachers use instructional activities that promote learning goals and connect with student

experiences and interests. Teachers modify and adjust instructional plans according to student engagement and achievement.

5. Standard for assessing student learning

Teachers establish and clearly communicate learning goals for all students. Teachers collect information about student performance from a variety of sources. Teachers involve all students in assessing their own learning. Teachers use information from a variety of ongoing assessments to plan and adjust learning opportunities that promote academic achievement and personal growth for all students. Teachers exchange information about student learning with students, families, and support personnel in ways that improve understanding and encourage further academic progress.

6. Standard for developing as a professional educator

Teachers reflect on their teaching practice and actively engage in planning their professional development. Teachers establish professional learning goals, pursue opportunities to develop professional knowledge and skill, and participate in the extended professional community. Teachers learn about and work with local communities to improve their professional practice. Teachers communicate effectively with families and involve them in student learning and the school community. Teachers contribute to school activities, promote school goals and improve professional practice by working collegially with all school staff. Teachers balance professional responsibilities and maintain motivation and commitment to all students.

APPENDIX C: ALTERNATIVE CREDENTIAL PROGRAMS AND ROUTES

Alternative credentialing programs are designed for nontraditional applicants, such as mid-career changers. While there is some concern over the quality of training available in these programs, state-sponsored alternative programs are generally well-regarded. California currently has 53 projects that have been awarded state funding by the CTC for alternative certification programs. Approximately 5,000 teachers in the public schools have received credentials through these programs.

The University Internship Program,²⁵⁶ developed by a university in partnership with school districts, provides simultaneous theory and practice for teacher candidates who meet certain requirements. Internship programs last for one to two years. Interns are first given training in classroom practices, and are then allowed to provide "instructional services" while completing teacher education courses at a nearby site.²⁵⁷ Course work, delivered by the university, blends with the interns' classroom experiences. Interns are paid no less than the minimum salary of a certified teacher, with a possible reduction for supervision costs.

*The District Internship Program*²⁵⁸ is a similar concept to the University Internship program, but it is initiated by the individual district. The district must develop a professional program in consultation with a CTC approved institution, to last for at least two years and include mentor support. The plan must include methods and child development training and other courses, as well as an annual evaluation of the intern. Interns enrolled in the program may teach after satisfying certain requirements. After completion of the professional development plan and two years of teaching experience, the district may recommend the intern for a Professional "Clear" Credential.²⁵⁹

The Pre-Internship Program, newly established for the 1998-99 year, is designed for emergency permit holders with the goal of eventually replacing the emergency permit system. It is not by itself a credentialing program; rather, it helps emergency permit holders to complete the necessary prerequisites for enrolling in an internship or other credentialing program. The program, funded by CTC grants to education agencies, provides emergency teachers with basic classroom training while helping them to complete their subject matter requirements. Experienced teachers also provide supervision and assistance to the preintern. Applicants must have received a Bachelor's degree, passed the CBEST, and partially completed their subject matter requirements. The Pre-Intern Teaching Certificate is good for one year, and may be renewed through enrollment in required courses for a second year; the anticipated time frame for completion is two years. After completing the program, teachers are expected to move into an internship or other accredited program to obtain their credential.

*The California School Paraprofessional Teacher Training Program*²⁶⁰ was intended to "respond to teacher shortages, improve the instructional services that are provided by school paraprofessionals, diversify the teaching profession, and establish innovative models

for teacher education." Follow-up legislation later required that the program focus on recruiting paraprofessionals willing to work in special or bilingual education. The program centers on academic scholarships, in the form of grants to local districts, which participants use towards the costs of tuition, books, and fees. The paraprofessionals, most of whom do not have college degrees, use the scholarships to obtain college degrees and teaching credentials. In exchange for this financial assistance, participants agree to teach in their sponsoring district for the same length of time as they spent in the program. The program's 13 sites, operational since the beginning of 1995, currently serve 573 participants.²⁶¹

Certification opportunities for emergency permit holders. Because of the recent proliferation of Emergency Permits, alternative credentialing programs have been designed to assist permit holders in becoming fully credentialed teachers. Two such programs are the CSU Sacramento and UC Davis joint venture and the CSU CredentialNet.²⁶² The CSU and UC joint program, scheduled to begin in June of 1998, offers intensive courses over two consecutive summers, with a supervised teaching internship during the year. Upon completion of the program, the candidate is eligible for a preliminary credential as an elementary school teacher. While the program was designed to accommodate emergency permit holders, it is also available to mid-career changers. It has the advantage of allowing the candidate to work full-time during the year, possibly as an emergency permitted classroom teacher, while obtaining a credential. CredentialNet offers online credential courses for emergency permit holders. The program uses a variety of technologies, including the Internet and video technology. CredentialNet is still under development, but credentialing information is currently available online, as is a reading methods course. Courses in mainstreaming, classroom management and child development, education technology, and "Crosscultural Language and Development" (CLAD) are scheduled for the 1998 and 1999 school years.

Online programs. In addition to CredentialNet, many universities now provide distance learning education courses over the Internet. Some programs only offer select courses in this manner; others enable applicants to conduct virtually all of their coursework from a distance. CSU Chico offers a distance learning program for emergency permit holders in most of the northern counties.²⁶³ Participants, who may be several hours away from the campus, use multimedia techniques to complete course requirements. UCLA and other schools offer a variety of education courses online.²⁶⁴

Other alternative programs include the California Aerospace and Defense Worker Corps, and national programs such as Teach for America. The California Aerospace and Defense Worker Corps "provides opportunities for mathematicians, scientists, and engineers who have been dislocated by defense cutbacks to enter into teaching." A similar program, which has received federal grant money, is the Teacher and Teacher's Aide Placement Assistance Program. Under this measure, members of the Armed Forces and employees of the Department of Defense and Department of Energy can attain certification and employment as teachers or teacher's aides. Another national program, Teach for America, gives AmeriCorps members opportunities to become teachers.

REFERENCES

- Abdal-Haqq, Ismat. (October 1996) "Making Time for Teacher Professional Development." *ERIC Digest.* ERIC Clearinghouse on Teaching and Teacher Education, Washington, D.C. ED 400259.
- --- (1989) "The Influence of Reform on Inservice Teacher Education." *ERIC Digest*. ERIC Clearinghouse on Teacher Education, Washington, D.C. ED 322147.
- American Federation of Teachers. "Table III-1: Actual Average Beginning BA Teacher Salaries, 1995-96 and 1996-97." Available online at http://www.aft.org/research/reports/salarysv/ss97/tables/iii-1.html.
- Billitteri, Thomas J. "Teacher Education." *The CQ Researcher*. Congressional Quarterly, Inc. Volume 7, No. 39, pp. 913-936. October 17, 1997.
- Birdsall, Les. "A Golden Age of Education." Los Angeles Times. May 17, 1998, Opinion.
- Bobbitt, Sharon A. et al. (May 1994) *Characteristics of Stayers, Movers, and Leavers: Results from the Teacher Followup 'Survey: 1991-92.* Schools and Staffing Survey. E.D. Tabs. National Center for Education Statistics, U.S. Department of Education.
- Bradley, Ann. "Alternative Accrediting Organization Taking Form With Federal Assistance." *Education Week. Volume XVII*, Number 19, January 21, 1998, p. 1.
- - - "Accreditors Shift Toward Performance." Education Week. Volume XVII, Number 9, October 29, 1997, p. 1.
- --- "Ed. Dept. Funds Large-Scale Research Effort on Teaching." Education Week. Volume XVII, Number 9, October 29, 1997, p. 10.
- California Commission on Teacher Credentialing. (November 1997) *California's Future: Highly Qualified Teachers for All Students.* Final Report of the Advisory Panel on Teacher Education, Induction and Certification for Twenty-First Century Schools (SB 1422). Sacramento: Published by author.
- ---. "Troops to Teachers." Available online at http://www.ctc.ca.gov.
- --- . "Certification Alternatives for Implementing Class Size Reduction Grades K-3." Available online at http://www.ctc.ca.gov/classsize.html.

- --- (Feb. 20, 1998) Revised Progress Report to the Legislature on the Status of the Paraprofessional Teacher Training Program. Sacramento: Published by author.
- --- (May 1998) 1996-97 Annual Report: Emergency Permits and Credential Waivers. Sacramento: Published by author.
- California Education Policy Seminar and the California State University Institute for Education Reform. (April 1997) *Pipeline to the Future: A Statewide Teacher Recruitment Plan for California*. Discussion, published by the California State University Institute for Education Reform.
- California State Teachers' Retirement System. (July 1998) Information packet compiled for this report.
- California State University Board of Trustees. (1998) Agenda. January, March, and July.
- California State University Institute for Education Reform. (1998) Press packet on CalTeach.
- --- (September 1997) Paying for What You Need: Knowledge- and Skill-Based Approaches to Teacher Compensation. Results of a discussion. Sacramento: Published by author.
- --- (September 1996) *A State of Emergency . . . In a State of Emergency Teachers.* Published by author.
- --- (February 1996) *The Teachers Who Teach Our Teachers*. Published by author.
- --- (September 1995) *Professional Development Schools: An Annotated Bibliographic Resource.* Published by author.
- --- (March 1994) *Teachers and Teaching: Recommendations for Policy Makers*. Published by author.
- - - and the Intersegmental Coordinating Committee of the California Education Round Table. (November 16, 1995) *Education Reform: Implications and Responsibilities for K-12 and Higher Education.* Intersegmental Symposium, published by authors.
- California State University Presidents Group on Teacher Preparation and K-18 Education. (1997) Recommendations presented to the California State University Board of Trustees Committee on Educational Policy, November 11-12. Executive Summary published in the CSU Board of Trustees *Agenda*.
- California Statewide Task Force on Teacher Recruitment. (March 1997) Shaping the Profession that Shapes California's Future: The California Statewide Teacher Recruitment Action Plan. Recruiting New Teachers, Inc.

- California Task Force on the National Board for Professional Teaching Standards. (September 1994) *Enhancing Professional Teaching Standards for California*. Sacramento: California Department of Education.
- California Tomorrow. (1994) *The Unfinished Journey: Restructuring Schools in a Diverse Society.* Published by authors.
- "Credentialing to go online." The Sacramento Bee. March 26, 1998, A-4.
- Corcoran, Thomas B. (1995) "Helping Teachers Teach Well: Transforming Professional Development." *CPRE Finance Brief.* Consortium for Policy Research in Education (CPRE). Available online at http://www.ed.gov/pubs/CPRE/t61.
- Darling-Hammond, Linda. (November 1997) *Doing What Matters Most: Investing in Quality Teaching*. New York: The National Commission on Teaching and America's Future.
- --- and Ellalinda Rustique-Forrester. (April 1997) "Investing in Quality Teaching: State-Level Strategies." *Perspective*. Denver: Education Commission of the States.
- Dilworth, Mary E., Ed. (1992) *Diversity in Teacher Education: New Expectations*. The Jossey-Bass Education Series and Jossey-Bass Higher and Adult Education Series.
- Dilworth, Mary. E. (April 1991) "Motivation Rewards, and Incentives." *Trends and Issues Paper No. 3.* ERIC Clearinghouse on Teacher Education, Washington, D.C. ISBN -0-89333-081-7.
- Dilworth, Mary. E. and David G. Imig. (June 1995) "Professional Teacher Development and the Reform Agenda." *ERIC Digest*. ERIC Clearinghouse on Teaching and Teacher Education, Washington, D.C. ED 383694.
- Education Commission of the States. (November 1997) *Investing in Teacher Professional Development. A look at 16 school districts.* Denver: published by author.
- Education Writers Association. (1997) *Education Reform*. Washington, DC: Published by authors. Available online at http://www.ewa.org/reform2.html.
- Engellenner, Jon. "California State University to ease admission to teacher training." *The Sacramento Bee*, July 16, 1998, A-4.
- ERIC Clearinghouse on Teaching and Teacher Education. (June 1995) "Reconceptualizing Professional Teacher Development." *ERIC Digest.* ERIC Clearinghouse on Teaching and Teacher Education, Washington, D.C. ED 383695.
- Fetler, Mark. (1997) "Where Have All the Teachers Gone?" *Education Policy Analyis Archives*, Vol. 5, No. 2, January 8. ISSN 1068-2341. Available online at http://olam.ed.asu.edu/epaa/v5n2.html.

- Goodlad, John. 1994) *Educational Renewal: Better Teachers, Better Schools*. San Francisco: The Jossey-Bass Education and Jossey-Bass Higher and Adult Education Series.
- --- (1990) *Teachers for Our Nation's Schools*. San Francisco: The Jossey-Bass Higher Education Series.
- Gordon, Kierstan. (May 1998) "License to Teach." Governing. pp. 38-40.
- Greer, Rita G. and William L. Husk. (1989) *Recruiting Minorities into Teaching*. Indiana: Phi Delta Kappa Educational Foundation.
- Guest, Linda S. (May 1993) *Improving Teacher Preparation: What the Reform Reports Recommend.* Education Commission of the States.
- Hart, Gary. "State's education reform glut misses the biggest issues." *The Sacramento Bee.* March 8, 1998, Forum 1.
- Harvard Family Research Project. (1997) *New Skills for New Schools: Preparing Teachers in Family Involvement*. Prepared under contract for the U.S. Department of Education. Available online at http://www.ed.gov/pubs/NewSkills.
- Hayward, Brad. "CSUS, UCD join forces on credential program." *The Sacramento Bee*, January 28, 1998, B-1.
- Hirsch, Eric. (February 1998) "Teacher Policy: A Summary of Current Trends." *State Legislative Report.* National Conference of State Legislatures. Vol. 23, No. 5.
- Houston, W. Robert, Ed. (1990) *Handbook of Research on Teacher Education*. Association of Teacher Educators. New York: Macmillan Publishing Company.
- Kelly, Carolyn and Allan Odden. (September 1995) "Reinventing Teacher Compensation Systems." *CPRE Finance Briefs*. The Consortium for Policy Research in Education. Available online at http://www.ed.gov/pubs/CPRE/fb6/.
- Kennedy, Mary M. (1992) "The Problem of Improving Teacher Quality While Balancing Supply and Demand." in *Teacher Supply, Demand, and Quality*. Erling E. Boe and Dorothy M. Gilford, Eds. Washington, DC: National Academy Press
- --- (May 1991) "Policy Issues in Teacher Education." Phi Delta Kappan. pp.659-665.
- King, Joyce E. et al, Eds. (1997) *Preparing Teachers for Cultural Diversity*. New York: Teachers College Press.
- Kramer, Rita. (1991) Ed School Follies: *The Miseducation of America's Teachers*. New York: Macmillan, Inc.
- Levine, Marsha, Ed. (1992) Professional Practice Schools: Linking Teacher Education and

- School Reform. New York: Teachers College Press.
- Lewis, Mark S. (February 1996) "Supply and Demand of Teachers of Color." *ERIC Digest*. ERIC Clearinghouse on Teaching and Teacher Education. Washington, DC: U.S. Department of Education.
- Lieberman, Ann, Ed. (May 1996) "Rethinking Professional Development." *Improving America's Schools: Newsletter on Issues in School Reform.* Washington, DC: U.S. Department of Education. Available online at http://www.ed.gov/pubs/IASA/nesletters/profdev.
- Little, Judith W. (1994) "Teachers' Professional Development in a Climate of Educational Reform." *Systemic Reform: Perspectives on Personalizing Education.* U.S. Department of Education, September. Available online at http://www.ed.gov/pubs/EdReformStudies/SysReforms/little1.html.
- Lynch, Larry and Bud Lembke, Publishers. "Peer Review." *Education Beat.* Vol. 8, No. 3, January 9, 1998.
- McDonnell, Loraine. (1989) *The Dilemma of Teacher Policy*. Center for Policy Research in Education and Center for the Study of the Teaching Profession (RAND Corporation).
- McLaughlin, Milbrey W. and Ida Oberman (Eds). (1996) *Teacher Learning: New Policies, New Practices*. New York: Teachers College Press, Columbia University.
- Murnane, Richard J. et al. (1991) Who Will Teach? Policies That Matter. Boston: President and Fellows of Harvard College.
- National Board for Professional Teaching Standards website, http://www.nbpts.org.
- National Center for Education Statistics. (February 1997) *Teacher Professionalization and Teacher Commitment: A Multilevel Analysis*. U.S. Department of Education. Available online at http://nces.ed.gov.
- --- (January 1997) "The Status of Teaching as a Profession 1990-91." *Statistical Analysis Report*. U.S. Department of Education. Available online at http://nces.ed.gov/pubs/97104.html.
- --- The Condition of Education 1996. U.S. Department of Education. Available online at http://nces.ed.gov.
- National Center for Education Statistics. Schools and Staffing Survey 1993-94, Teacher Followup Survey 1994-95. U.S. Department of Education. Various publications available online at http://nces.ed.gov.
- --- (March 1993) "Teacher Salaries -- Are They Competitive?" Issue Brief. IB-1-93.

- The National Commission on Teaching and America's Future. (September 1996) What Matters Most: Teaching for America's Future. Published by authors.
- National Foundation for the Improvement of Education. (1996) *Transforming Professional Development for Student Success*. Published by authors, available online at http://www.nfie.org/fullreport.htm.
- --- A Change of Course. Published by authors, available online at http://www.nfie.org/course.htm.
- National Goals Education Panel. (July 1995) *Report of the Goal 4 Resource Group*. Teacher Education and Professional Development.
- The NETWORK, Inc. (September 1995) *Systemic Reform in the Professionalism of Educators*. U.S. Department of Education. Available online at http://www.ed/gov/pubs/SER/ProfEd.
- North Central Regional Education Library. (1997) "Critical Issue: Finding Time for Professional Development." Published by authors, available online at http://www.ncrel.org/sdrs/areas/issues/educatrs/profdevl/pd300.html.
- --- (1996) "Critical Issue: Realizing New Learning for All Students Through Professional Development." Published by authors, available online at http://www.ncrel.org/sdrs/areas/issues/educatrs/profdevl/pd200.html.
- O'Hair, Mary J. and Sandra J. Odell, Eds. (1993) *Diversity and Teaching*. Teacher education Yearbook I. Under sponsorship of the Association of Teacher Educators. Harcourt Brace Jobanovich College Publishers.
- Policy Analysis for California Education. (April 1995) *Conditions of Education in California* 1994-95. Berkeley: published by authors. Policy paper No. PP95-4-1.
- --- (March 1986) A View from the Classroom: California Teachers' Opinions on Working Conditions and School Reform Proposals. Policy Paper No. PP86-3-1.
- Ponticell, Judith A. (Summer 1995) "Promoting Teacher Professionalism through Collegiality." *Journal of Staff Development.* Vol. 16, No. 3.

- Recruiting New Teachers, Inc. (May 1996) *The Urban Teacher Challenge: A report on teacher recruitment and demand in selected Great City Schools.* Prepared on behalf of The Urban Teacher Collaborative.
- "Recruiting teachers, Try m-o-n-e-y." *The Economist*, July 18, 1998, pp. 27-28.
- Sarason, Seymour B. (1993) *The Case for Change: Rethinking the Preparation of Educators*. San Francisco: The Jossey-Bass Higher and Adult Education Series.
- Shen, Jianping. (Fall 1997) "Has the Alternative Certification Policy Materialized Its Promise? A Comparison Between Traditionally and Alternatively Certified Teachers in Public Schools." *Education Evaluation and Policy Analysis*. Vol. 19, No. 3, pp. 276-283.
- Sikula, John (Ed.). (1996) *Handbook of Research on Teacher Education*. Second Edition. Association of American Teachers. New York: Simon & Schuster Macmillan.
- Sparks, Dennis. (Winter 1994) "Staff Development Implications of National Board Certification: An Interview with NBPTS's James Smith." *Journal of Staff Development*. Vol. 15, No. 1.
- Tyson, Harriet. (1994) Who Will Teach the Children? Progress and Resistance in Teacher Education. San Francisco: The Jossey-Bass Education and Jossey-Bass Higher and Adult Education Series.
- U.S. Department of Education. *Building Bridges: The Mission & Principles of Professional Development.* Washington, DC: Published by author.
- Weiner, Lois. (1993) Preparing Teachers for Urban Schools: Lessons from Thirty Years of School Reform. New York: Teachers College Press.

Endnotes

¹ Patricia Albjerg Graham, S.O.S. Sustain Our Schools. New York: Hill and Wang, 1992, p. 8.

http://www.cde.ca.gov/ftpbranch/retdiv/demo/reports/booklets/sums96.htm#staff.

² Ibid.

³ Ibid.

⁴ National Center for Education Statistics, "Issues in Focus: Teachers' working conditions," *The Condition of Education 1996*, http://nces.ed.gov/pubsold/ce96/960007.html.

⁵ For more information about CLAD and BCLAD, see California Commission on Teacher Credentialing, "Serving Limited-English-Proficient (LEP) Students," CL-622. Available online at http://www.ctc.ca.gov.

⁶ Thomas J. Billitteri, "Teacher Education," *CQ Researcher*, Vol. 7, No. 39, pp. 913-936. October 17, 1997.

⁷ Patricia Albjerg Graham, op. cit.

⁸ Les Birdsall, "A Golden Age of Education" *Los Angeles Times*, Opinion, May 17, 1998.

⁹ Ibid.

¹⁰ Thomas J. Billitteri, op. cit., p. 923.

¹¹ Teacher professionalization has been defined differently by various groups. The clearest definition is found in the National Center for Education Statistics report, *Teacher Professionalization and Teacher Commitment: A Multilevel Analysis*, U.S. Department of Education, Office of Educational Research and Improvement, February 1997 (NCES 97-069), p. vii. It defines teacher professionalization as "the movement to upgrade the status, training, and working conditions of teachers." Components included in the report include credential standards, beginning teacher induction, the type of and support for professional development, the degree of authority which teachers have in their individual classrooms and in school policy making, and teacher compensation.

¹² For more information, see the National Board website at http://www.nbpts.org. A preliminary report from a California perspective is California Department of Education, *Enhancing Professional Teaching Standards for California. A Report of The California Task Force on the National Board For Professional Teaching Standards*, September 1994.

¹³ Education Commission of the States, *Improving Teacher Preparation*, published by author, 1993, pp. 12-13.

¹⁴ America 2000 began in 1989, and Goals 2000 passed in 1994. Thomas J. Billitteri, op. cit.

¹⁵ In particular, Indiana, Connecticut, Kentucky, and North Carolina moved to performance-based teacher standards, and enacted various other measures designed to attract and retain teachers and ensure their preparedness. California introduced and enacted numerous bills on teacher preparation, and continues to do so.

¹⁶ Thomas J. Billitteri, op. cit.

¹⁷ Data from the California Department of Education,

¹⁸ "Pipeline to the Future: A Statewide Teacher Recruitment Plan for California," a discussion sponsored by the California Education Policy Seminar and the CSU Institute for Education Reform, April 1997.

¹⁹ David F. Labaree, as cited in Thomas J. Billitteri, op. cit., p. 925.

²⁰ A fully-credentialed teacher is one who holds a current California teaching credential for the subject and grade level being taught.

grade level being taught.

²¹ California State University Institute for Education Reform, *A State of Emergency . . . In a State of Emergency Teachers*, published by author, September 1996.

²² Ibid.

²³ California Commission on Teacher Credentialing, *1996-97 Annual Report: Emergency Permits and Credential Waivers.* Published by authors, May 1998.

²⁴ Ibid

²⁵ California Commission on Teacher Credentialing, *California's Future: Highly Qualified Teachers for All Students*, Final Report of the Advisory Panel on Teacher Education, Induction and Certification for Twenty-First Century Schools (SB 1422), November 1997.

²⁶ Delaine Eastin, testimony before the Senate Sub Committee on Education Finance, March 10, 1998.

²⁸ CSU Institute for Education Reform, *A State of Emergency. . . In a State of Emergency Teachers*, published by author, September 1996.

- ²⁹ Multiple Subject Emergency Permits increased due to Class Size Reduction, but Permits with CLAD emphasis rose from 28 in 1995-96 to 323 in 1996-97. CLAD emphasis Single Subject Emergency Permits rose from 21 to 86 during the same period. The combined total of Special Education and Resource Specialist Emergency Permits rose from 3,989 to 4,271. California Commission on Teacher Credentialing, 1996-97 Annual Report: Emergency Permits and Credential Waivers. Published by authors, May 1998.

 ³⁰ CSU Institute for Education Reform, A State of Emergency. . . In a State of Emergency Teachers, published by authors, September 1996.
- ³¹ CSU Institute for Education Reform, *Pipeline to the Future: A Statewide Teacher Recruitment Plan for California*, April 1997.
- ³² State Teachers Retirement System, information compiled upon request, July 21, 1998.
- ³³ California Commission on Teacher Credentialing, *California's Future: Highly Qualified Teachers for All Students*. November 1997.
- ³⁴ Ibid.
- ³⁵ California Commission on Teacher Credentialing, *1996-97 Annual Report: Emergency Permits and Credential Waivers.* Published by authors, May 1998.
- ³⁶ CSU Institute for Education Reform, *Pipeline to the Future: A Statewide Teacher Recruitment Plan for California*, April 1997.
- ³⁷ American Association of Colleges for Teacher Education, CSU Institute for Education Reform, the California Education Policy Seminar. See, for example, the California Statewide Task Force on Teacher Recruitment, *Shaping the Profession that Shapes California's Future: The California Statewide Teacher Recruitment Action Plan.* Developed in consultation with Recruiting New Teachers, Inc. March 1997.
- ³⁸ CSU Institute for Education Reform, *Pipeline to the Future: A Statewide Teacher Recruitment Plan for California*, April 1997.
- ³⁹ Mark Lewis, "Supply and Demand of Teachers of Color," ERIC Digest, ERIC Clearinghouse on Teaching and Teacher Education, Washington, DC. (EDO 390 875), February 1996.
- ⁴⁰ Richard Murnane et al, *Who Will Teach? Policies That Matter*. Boston: President and Fellows of Harvard College. 1991.
- ⁴¹ Mary Kennedy, in Erling Boe and Dorothy Gilford, Eds, *Teacher Supply, Demand, and Quality*
- ⁴² See, for instance, National Commission on Teaching and America's Future, *What Matters Most: Teaching for America's Future*, published by author, September 1996.
- ⁴³ Thomas J. Billitteri, op. cit., p. 919.
- ⁴⁴ Mary M. Kennedy, in *Teacher Supply, Demand, and Quality*. Erling Boe and Dorothy Gilford, Eds. Washington, DC: National Academy Press, 1992.
- ⁴⁵ Mary M. Kennedy, "Policy Issues in Teacher Education," Phi Delta Kappan, May 1991, pp. 659-65.
- ⁴⁶ Ibid. ⁴⁷ Ibid.
- ⁴⁸ Yvonne Gold, "Beginning Teacher Support: Attrition, Mentoring, and Induction," p. 552. In John Sikula, Ed. *Handbook of Research on Teacher Education*. Second Edition. Association of American Teachers. New York: Simon & Schuster Macmillan. 1996.
- ⁴⁹ Mary Dilworth, "Motivation, Rewards, and Incentives. Trends and Issues Paper No. 3." ERIC Clearinghouse on Teacher Education, Washington, DC. (ED 330 692), p. 1.
- ⁵⁰ National Center for Education Statistics, SASS by State. *1993-94 Schools and Staffing Survey: Selected Results*, U.S. Department of Education, Office of Education Research and Improvement, NCES 96-312.
- ⁵¹ Richard Murnane et al. (1991) *Who Will Teach? Policies that Matter*. Cambridge: Harvard University Press, p. 29.
- ⁵² American Federation of Teachers, http://www.aft.org/research/reports/salarysv/ss97/tables/iii-1.html.
- ⁵³ Linda Darling-Hammond, *Doing What Matters Most: Investing in Teacher Quality*, National Commission on Teaching and America's Future, November 1997.

²⁷ CSU Institute for Education Reform, *Pipeline to the Future: A Statewide Teacher Recruitment Plan for California*, April 1997.

⁵⁵ State Teachers Retirement System, information compiled upon request, July 21, 1998.

- ⁵⁶ Linda Darling-Hammond and Eileen Mary Sclan, "Who Teaches and Why: Dilemmas of Building a Profession for Twenty-First Century Schools," in John Sikula, Ed. *Handbook of Research on Teacher Education*. Second Edition. Association of American Teachers. New York: Simon & Schuster Macmillan. 1996. In the 1993-94 school year, the average supplemental earnings for teachers working outside their schools was \$5,600; additional school compensation averaged \$2,400. In 1993, teachers who worked during the summer (for the school) received an average of \$2,300. U.S. Department of Education, National Center for Education Statistics, "Schools and Staffing Survey, 1993-94," as cited in *The Condition of Education 1998*, same author.
- ⁵⁷ National Commission on Teaching and America's Future, op. cit. Richard Murnane et al., op. cit., cite studies that indicate that raising teacher salaries increases the pool of teacher applicants.
- ⁵⁸ Yvonne Gold, op. cit.
- ⁵⁹ District administrator, as quoted in California Statewide Task Force on Teacher Recruitment, *Shaping the Profession that Shapes California's Future: The California Statewide Teacher Recruitment Action Plan*, Recruiting New Teachers, Inc., March 1997, p. 8.
- ⁶⁰ Mary M. Kennedy, 1992, op. cit., p. 88.
- 61 Linda Darling-Hammond, November 1997, op. cit., p. 25.
- ⁶² Erling Boe and Dorothy Gilford, Eds. 1992
- 63 National Center for Education Statistics, "Issues in Focus: Teachers' working conditions," *The Condition of Education 1996*, http://nces.ed.gov/pubsold/ce96/960007.html.
- ⁶⁴ Linda Darling-Hammond, November 1997, op. cit.
- ⁶⁵ National Commission on Teaching and America's Future, op. cit.
- ⁶⁶ National Commission on Teaching and America's Future, op. cit.
- ⁶⁷ National Center for Education Statistics, *Characteristics of Stayers, Movers, and Leavers: Results from the Teacher Followup Survey: 1994-95*, U.S. Department of Education, Office of Educational Research and Improvement, May 1997, NCES 97-450.
- ⁶⁸ Linda Darling-Hammond and Eileen Mary Sclan, op, cite, p. 83.
- ⁶⁹ Yvonne Gold, op. cit.
- ⁷⁰ California Commission on Teacher Credentialing, *California's Future: Highly Qualified Teachers for All Students*. November 1997.
- ⁷¹ Bobbit, Sharon et al., 1994. "Characteristics of Stayers, Movers, and Leavers: Results from the Teacher Followup Survey: 1991-2." National Center for Education Statistics, Washington, DC. May. ERIC ED 374 134.
- ⁷² Mary M. Kennedy, 1992, op. cit., p. 7-11.
- ⁷³ Mary M. Kennedy, 1992, op. cit. Richard Murnane et al., op. cit.
- ⁷⁴ Ibid.
- ⁷⁵ See, for instance, the National Center for Education Statistics, Schools and Staffing Survey 1993-94 data on "Job Satisfaction Among America's Teachers" (Table 15). A regression analysis of various workplace conditions indicates that, while both are significant, teacher benefits have a stronger correlation with satisfaction than do teacher salaries. Http://nces.ed.gov/pub97/97471.html.
- ⁷⁶ Mary M. Kennedy, 1992, op. cit.
- ⁷⁷ Ibid. Richard Murnane et al., op. cit.
- ⁷⁸ Bobbit, Sharon et al., op. cit.
- ⁷⁹ Richard Murnane et al., op. cit.
- National Center for Education Statistics, "Which Types of Schools Have the Highest Teacher Turnover?" *Issue Brief* IB-5-95, August 1995. Available online at http://nces.ed.gov/pubs/95778.html.
- ⁸¹ Mark Fetler, "Where Have All the Teachers Gone?" *Education Policy Analysis Archives*, Vol. 5, NO. 2, ISSN 1068-2341, January 8, 1997. Available online at http://olam.ed.asu.edu/epaa/vv5n2.html.
- ⁸² Richard Murnane et al., op. cit.
- ⁸³ Mary M. Kennedy, 1992, op. cit. Richard Murnane et al., op. cit.
- ⁸⁴ Bobbit, Sharon et al., op. cit.

⁵⁴ National Center for Education Statistics, "Teacher Salaries – Are They Competitive?" *Issue Brief*, National Center for Education Statistics, U.S. Department of Education, March 1993.

⁸⁵ Linda Darling-Hammond and Eileen Mary Sclan, op. cit., p. 86.

⁸⁶ Yvonne Gold, op. cit., p. 555.

⁸⁷ Ibid, p. 550.

⁸⁸ National Center for Education Statistics, "Issues in Focus: Teachers' working conditions," *The Condition* of Education 1996, http://nces.ed.gov/pubsold/ce96/960007.html.

At a 1998 high school graduation in a California school district, a student crossed the stage wearing a backpack over his graduation robe. Teachers in the audience reported that they watched him closely,

preparing to dive for cover if he reached into the backpack.

90 National Center for Education Statistics, "Issues in Focus: Teachers' working conditions," *The Condition* of Education 1996, http://nces.ed.gov/pubsold/ce96/960007.html.

Julia Koppich et al., A View from the Classroom: California Teachers' Opinions on Working Conditions and School Reform Proposals, Policy Analysis for California Education, Policy Paper No. PP86-3-1, March 1986.

⁹² Ibid.

⁹³ Yvonne Gold, op. cit.

⁹⁴ Ibid.

⁹⁵ Ibid.

⁹⁶ National Commission on Teaching and America's Future, op. cit., p. 39-40).

⁹⁷ National Center for Education Statistics, Characteristics of Stayers, Movers, and Leavers: Results from the Teacher Followup Survey: 1994-95. Available online at http://nces.ed.gov/pubs97/97450.html.

⁹⁸ Yvonne Gold, op. cit.

⁹⁹ Ibid.

¹⁰⁰ See John Sikula, Ed. *Handbook of Research on Teacher Education*. Second Edition. Association of American Teachers. New York: Simon & Schuster Macmillan. 1996.

¹⁰¹ National Center for Education Statistics, "Characteristics of Stayers, Movers, and Leavers: Results from the Teacher Followup Survey: 1994-95," Schools and Staffing Survey, E.D. TABS May 1997, NCES 97-450.

¹⁰² John Sikula, Ed., op. cit.

¹⁰³ California Commission on Teacher Credentialing, National Commission on Teaching and America's Future, CSU Presidents' Committee on Teacher Preparation and K-18 Programs.

¹⁰⁴ California Commission on Teacher Credentialing, CSU Presidents' Committee on Teacher Preparation and K-18 Programs.

¹⁰⁵ Integrated programs begin in the student's first year of college, and last 4 ½ to 5 years. At the end of the program, the student receives a baccalaureate degree in their subject major and a recommendation for a teaching credential.

¹⁰⁶ The CSU Board of Trustees Agenda for the July 14-15, 1998 meeting includes an attachment titled "CSU's Commitment to Prepare High Quality Teachers" under Education Policy Committee, p. 5. The plan was adopted unanimously at the meeting. Jon Engellenner, "CSU to ease admission to teacher training," The Sacramento Bee, July 16, 1998, A-4.

¹⁰⁷ CA Education Policy Seminar and the CSU Institute for Education Reform, *Pipeline to the Future: A* Statewide Teacher Recruitment Plan for California. Published by authors, April 1992. National Commission on Teaching and American's Future, op. cit.

¹⁰⁸ CSU Institute for Education Reform, California Commission on Teacher Credentialing (SB 1422) Advisory Panel.

¹⁰⁹ Distance education courses are offered online, and may combine several media, as well as personal

communication with the professor.

110 The CSU system set a goal of increasing these programs through expanded university-district partnerships at the Board of Trustees July 14-15, 1998 meeting. See "CSU's Commitment to Prepare High Quality Teachers," CSU Board of Trustees Agenda, Education Policy Committee, p. 5. July 14-15, 1998.

¹¹¹ National Commission on Teaching and America's Future, California Commission on Teacher Credentialing.

¹¹² California Statewide Task Force on Teacher Recruitment, *Shaping the Profession that Shapes* California's Future: The California Statewide Teacher Recruitment Action Plan. Developed in

consultation with Recruiting New Teachers, Inc. as recommendations to the California Commission on Teacher Credentialing, the California State Department of Education, and the CSU Institute for Education Reform. March 1997.

- ¹¹³ For a description of recent legislation and this program, see Appendices A and C.
- ¹¹⁴ Linda Darling-Hammond, in presentation to the California Commission on Teacher Credentialing meeting, January 1998.
- ¹¹⁵ Rod Santiago, Assistant Consultant, California Commission on Teacher Credentialing, personal communication, June 2, 1998.

 116 National Commission on Teaching and America's Future, op. cit.
- 117 CSU Presidents Group on Teacher Preparation and K-18 Education, op. cit. California Commission on Teacher Credentialing, California's Future: Highly Qualified Teachers for All Students. November 1997.
- ¹¹⁸ National Commission on Teaching and America's Future, op. cit.
- 119 Ibid.
- ¹²⁰ Ibid. California Commission on Teacher Credentialing, California's Future: Highly Qualified Teachers for All Students. November 1997.
- ¹²¹ (1985, p. 109), as cited in Yvonne Gold, op. cit., p. 556.
- ¹²² Linda Darling-Hammond, November 1997, op. cit. California Commission on Teacher Credentialing. California's Future: Highly Qualified Teachers for All Students. November 1997.
- ¹²³ The Economist, "Recruiting Teachers, Try Money" July 18, 1998, p. 28.
- Linda Darling-Hammond November 1997, op. cit. California Commission on Teacher Credentialing, California's Future: Highly Qualified Teachers for All Students. November 1997. Gary Hart, "State's education reform glut misses the biggest issues," *The Sacramento Bee*, March 8, 1998, Forum 1.
- ¹²⁵ The Economist, "Recruiting Teachers, Try Money" July 18, 1998, p. 28.
- ¹²⁶ CSU Institute for Education Reform, A State of Emergency. . . In a State of Emergency Teachers, published by author, September 1996.

 127 State Teachers Retirement System, information compiled upon request, July 21, 1998.
- ¹²⁸ California Public Employees, Retirement System, "Comparison of Selected CalPERS Retirement Benefits." January 1997.
- ¹²⁹ Ibid.
- ¹³⁰ Linda Darling-Hammond, November 1997, op. cit.
- ¹³¹ Adopted by the Illinois General Assembly and signed into law by Governor James Thompson in December 1988. For information about this act, see G. Alfred Hess, Jr. (Ed.) Education and Urban Society, Vol. 26, No. 3, May 1994.
- 132 Ibid.
- ¹³³ National Commission on Teaching and America's Future, op. cit.
- Task force members include representatives of the CTC, the State Department of Education, the Governor's Office of Child Development and Education, the CTA and CTF, CSU, various Schools of Education, and school district personnel.
- These recommendations were adopted in the California Commission on Teacher Credentialing report. California's Future: Highly Qualified Teachers for All Students. November 1997.
- ¹³⁶ See, for instance, the U.S. Department of Education publication, New Skills for New Schools: Preparing Teachers in Family Involvement – 1997. Available online at http://www.ed.gov/pubs/NewSkills.
- ¹³⁷ Linda Darling-Hammond and Eileen Mary Sclan, op. cit.
- ¹³⁸ Linda Darling-Hammond, November 1997, op. cit.
- 139 National Commission on Teaching and America's Future, op. cit.
- ¹⁴⁰ Betty Malen and Rodney T. Ogawa, An Analysis of Site-Based Management as an Education Reform Strategy, The University of Utah, Graduate School of Education, Department of Educational Administration, June 1989. http://www.gse.utah.edu/EDAdm/Galvin/Malogakr.html.
- ¹⁴¹ For more information and analysis, see the National Center for Education Statistics, *Teacher* Professionalization and Teacher Commitment: A Multilevel Analysis, U.S. Department of Education. Office of Educational Research and Improvement. NCES-069, February 1997. Available online at http://nces.ed.gov/pubs/97069.html.
- See, for instance, National Commission on Teaching and America's Future, op cite.

¹⁴³ Ibid.

- ¹⁴⁴ Ibid. CA Education Policy Seminar and the CSU Institute for Education Reform. *Pipeline to the Future: A Statewide Teacher Recruitment Plan for California*, published by authors, April 1997.
- ¹⁴⁵ Ibid. While reports on the effects of BTSA and other induction programs have been overwhelmingly positive, one word of caution has also appeared in the literature. The use of mentor teachers tends to negatively affect innovation or the implementation of new theories on the part of the beginning teacher. Mentor teachers are more likely to correct such practices, preferring their own traditional methods.

¹⁴⁶ Ibid., p. 39-40.

- ¹⁴⁷Ibid., p. 39-40.
- ¹⁴⁸ Induction programs have broad support from groups such as the California Commission on Teacher Credentialing, the CSU Institute for Education Reform, and the National Commission on Teaching and America's Future.
- ¹⁴⁹ Yvonne Gold, op. cit.
- ¹⁵⁰ Delaine Eastin, testimony before the Senate Subcommittee on Education Finance, March 10, 1998.
- ¹⁵¹ Yvonne Gold, op. cit.
- Linda Darling-Hammond, November 1997, op. cit., p. 8.
- For additional studies, see Linda Darling-Hammond, November 1997, op. cit.
- ¹⁵⁴ Linda Darling-Hammond, 1997, op. cit., p. 9. Test scores, education, and experience were generally the indicators used.
- ¹⁵⁵ Ibid., p. 10.
- 156 National Commission on Teaching and America's Future, September op. cit., p. 52.
- ¹⁵⁷ Linda Darling-Hammond, November 1997, op. cit. The studies covered mathematics, reading, and other elementary school subjects. One study of third to fifth grade math students found that 43% of the explained variance in test score gains was due to teacher qualifications, as defined by licensing examination scores, education, and experience. The lowest reported percentage was 31%, from a study done in Alabama, using master's degrees and ACT scores to judge the predicted difference between districts scoring in the top and bottom quartiles in mathematics. The highest percentage was 90%, from a study done in New York City using student achievement in reading and mathematics.
- ¹⁵⁸ Linda Darling-Hammond, November 1997, op. cit.
- ¹⁵⁹ Ibid
- ¹⁶⁰ Linda S. Guest, *Improving Teacher Preparation: What the Reform Reports Recommend*. Education Commission of the States, May 1993, p. 13.
- ¹⁶¹ John I. Goodlad, *Educational Renewal: Better Teachers*, *Better Schools*. San Francisco: Jossey-Bass Publishers, 1994, p. 46.
- ¹⁶² Sue Burr, Co-Director, CSU Institute for Education Reform, personal communication, February 11, 1998.
- ¹⁶³ CSU Institute for Education Reform, *The Teachers Who Teach Our Teachers*, February 1996.
- ¹⁶⁴ John I. Goodlad, 1994, op. cit.
- ¹⁶⁵ CSU Institute for Education Reform, *The Teachers Who Teach Our Teachers*, February 1996.
- ¹⁶⁶ John I. Goodlad, 1994, op. cit. Harriet Tyson, *Who Will Teach the Children?* Sponsored by the Council For Basic Education, San Francisco: Jossey-Bass Publishers, 1994.
- ¹⁶⁷ CSU Institute for Education Reform, *The Teachers Who Teach Our Teachers*, February 1996.
- ¹⁶⁸ National Commission on Teaching and America's Future, op. cit.
- ¹⁶⁹ Ibid. Harriet Tyson, op. cit.
- ¹⁷⁰ Thomas J. Billitteri, op. cit., p. 919
- ¹⁷¹ John Goodlad, 1994, op. cit.
- ¹⁷² California Commission on Teacher Credentialing, November 1997, op. cit.
- ¹⁷³ There is broad agreement on this issue. See, for example, the 1997 reports from the CSU Presidents Group on Teacher Preparation and K-18 Education and the National Commission on Teaching and America's Future.
- ¹⁷⁴ Bill Martin, CSU Chico, personal communication, April 7, 1998.
- 175 CSU Institute for Education Reform, *The Teachers Who Teach Our Teachers*, February 1996, p. 9.

- ¹⁷⁶ Ann Lieberman and Lynne Miller, "Teacher Development in Professional Practice Schools," in Marsha Levine, Ed., Professional Practice Schools, New York: Teachers College, Columbia University, 1992.
- ¹⁷⁷ The National Foundation for the Improvement of Education (NFIE), *Teachers Take Charge of Their* Learning, published by author, 1996.
- ¹⁷⁸ Ibid., section 4, p. 15. Their recommendations are based on results of grants to school districts.
- ¹⁷⁹ CSU Institute for Education Reform, Teachers and Teaching: Recommendations for Policy Makers. December 1994.
- ¹⁸⁰ Ibid.
- ¹⁸¹ Linda Darling-Hammond, November 1997, op. cit. Mary M. Kennedy, 1992, op. cit.
- ¹⁸² Levine, Marsha, Ed. Professional Practice Schools: Linking Teacher Education and School Reform. New York: Teachers College Press, 1992.
- Linda Darling-Hammond, November 1997, op. cit.
- Education Commission of the States, *Investing in Teacher Professional Development*, November 1997,
- p. 16. ¹⁸⁵ Ibid. Thomas Corcoran, "Helping Teachers Teach Well: Transforming Professional Development," CPRE Policy Brief, Consortium for Policy Research in Education, June 1995.
- ¹⁸⁶ Bruce Hagin, CA Dept. of Education, personal communication, April 7, 1998.
- ¹⁸⁷ Senate Bill 2042 (Alpert & Mazzoni) would require that professional development work relate to the California Standards for the Teaching Profession (Appendix B). See Appendix A for more detail on the legislation.
- National Foundation for the Improvement of Education, op. cit.
- 189 Ismat Abdal-Haqq, "Making Time for Teacher Professional Development," ERIC Digest, ERIC Clearinghouse on Teaching and Teacher Education, Washington, DC. ED 400 259. And North Central Regional Educational Laboratory, "Critical Issue: Finding Time for Professional Development," http://www.ncrel.org/sdrs/areas/issues/educatrs/profdevl/pd300.htm.
- ¹⁹⁰ CSU Institute for Education Reform, Teachers and Teaching: Recommendations for Policy Makers. December 1994.
- ¹⁹¹ Thomas Corcoran, op. cit.
- ¹⁹² National Foundation for the Improvement of Education, op. cit.
- ¹⁹³ CSU Institute for Education Reform, National Commission for Teaching and America's Future, the Holmes Group.
- ¹⁹⁴ John Goodlad, 1994, op. cit.
- ¹⁹⁵ This practice is used in some California State Universities.
- ¹⁹⁶ San Francisco State University, in a joint internship program with Elk Grove Unified School District, has hired the district program director, Sue Stickel, as an adjunct professor.
- ¹⁹⁷ Marlowe Berg, director, and several mentor and student teachers, at Jamacha Elementary School, one of the participants in the San Diego State University and Cajon Valley Union School District "Model Education Center." Personal communications, May 4, 1998.
- ¹⁹⁸ Lee Teitel, "Changing Teacher Education Through Professional Development School Partnerships: A Five-year Follow-up Study," Teachers College Record, Vol. 99, No. 2, Winter 1997, pp. 311-34.
- Thomas J. Billitteri, op. cit. Mary M. Kennedy, 1992, op. cit.
- ²⁰⁰ Marlowe Berg, University Coordinator, Model Education Center, San Diego State University, personal
- communication, May 4, 1998.

 ²⁰¹ Sue Burr, Associate Director, CSU Institute for Education Reform, personal communication, February 11, 1998. CSU Institute for Education Reform, The Teachers Who Teach Our Teachers, published by author, February 1996. California State University Board of Trustees, Agenda, January 27-28, 1998, Education Policy.
- ²⁰² CSU Teacher Education & K-18 Programs, CSU Institute for Education Reform.
- ²⁰³ California Commission on Teacher Credentialing, November 1997, op. cit. National Commission on Teaching and America's Future, op. cit.
- ²⁰⁴ "CSU's Commitment to Prepare High Quality Teachers," CSU Board of Trustees Agenda, Education Policy Committee, p. 5. July 14-15, 1998.

- ²⁰⁵ Bill Wilson, Director, CSU Teacher Education & K-18 Programs, personal communication, January 28, 1998. Sue Burr, Co-Director, CSU Institute for Education Reform, personal communication, February 11,
- ²⁰⁶ Bill Wilson, op. cit.
- Harriet Tyson, Who Will Teach the Children? San Francisco: Jossey-Bass Publishers, 1994.
- ²⁰⁸ CPRE, CPRE Professional Development Profiles: California.
- ²⁰⁹ Ibid., p. 2.
- ²¹⁰ Ibid.
- ²¹¹ Sue Burr, op. cit.
- ²¹² The Association of Mexican-American Educators, et al. v. The State of California and the California Commission on Teacher Credentialing. The federal judge allowed the suit to go forward as a class action suit in 1994, and ruled against the plaintiffs in September 1996. "California Basic-Skills Test for Teachers Upheld," Education Week, September 25, 1996.
- Linda Darling-Hammond, November 1997, op. cit.
- Thomas J. Billitteri, op. cit.
- As of 1997, California adopted the California Standards for the Teaching Profession (CSTP). See Appendix B for more detail.

 216 Linda Darling-Hammond, California Commission on Teacher Credentialing monthly meeting, January
- ²¹⁷ According to a recently adopted CSU document, all CSU campuses will have common exit standards based on the California Standards for the Teaching Profession by July 2000. "CSU's Commitment to Prepare High Quality Teachers," CSU Board of Trustees Agenda, Education Policy Committee, p. 5. July 14-15, 1998.
- ²¹⁸ California Commission on Teacher Credentialing, November 1997, op. cit. National Commission on Teaching and America's Future, op. cit.
- ²¹⁹ "California Basic-Skills Test for Teachers Upheld," *Education Week*, September 25, 1996. Opponents of the CBEST view such assessments as preferable alternatives, while those who support the CBEST consider the tests to be desirable additions.
- The CTC is sponsoring SB 2042 (Alpert & Mazzoni), which would require performance-based assessments where funding is available. See Appendix A for more detail.

 221 Ann Bradley, "Alternative Accrediting Organization Taking Form With Federal Assistance," *Education*
- Week, Vol. 17, No. 19, January 21, 1998.
- ²²² Ann Bradley, "Accreditors Shift Toward Performance," *Education Week*, Vol. 17, No. 9, October 29. 1997, p. 1.
- See, for example, the National Commission on Teaching and America's Future, September 1996.
- ²²⁴ Poway Unified School District in San Diego, CA, as well as districts in Toledo, Ohio, Cincinnati, and Rochester, New York have peer review programs. Ohio has money for grants to districts interested in planning or implementing peer review. For more information, see Ann Bradley, "Peer-Review Programs Catch Hold As Unions, Districts Work Together," Education Week, June 3, 1998, p. 1; "Peer Review," Education Beat, Larry Lynch and Bud Lembke, Co-Publishers, Vol. 8, No. 3, January 9, 1998, p. 5. ²²⁵ "Peer Review," *Education Beat*, Larry Lynch and Bud Lembke, Co-Publishers, Vol. 8, No. 3, January 9,
- 1998, p. 5.
- The National Foundation for the Improvement of Education (NFIE), op. cit. The National Commission on Teaching and America's Future also cites several studies in its September 1996 report.

 227 The National Board came out of the Carnegie Forum on Education and the Economy report, *A Nation*
- Prepared: Teachers for the 21st Century (1986). The National Board is headed by 63 members, the majority of which are classroom teachers, and a third are school administrators and policymakers. Leaders from the two national teacher unions (NEA and AFT) also sit on the board of directors.
- ²²⁸ For a detailed description of the INTASC standards, see Appendix B.
- ²²⁹ National Board for Professional Teaching Standards Website, at http://www.nbpts.org/nbpts/where/pacific/california.html.
- ²³⁰CSU Institute for Education Reform, Teachers and Teaching: Recommendations for Policy Makers, December 1994.

- ²³¹ Bruce Hagin, CA Dept. of Education, personal communication, April 7, 1998.
- ²³² Linda Darling-Hammond and Ellalinda Rustique-Forrester, "Investing in Quality Teaching: State-Level Strategies," Perspective, Education Commission of the States, April 1997.
- The National Foundation for the Improvement of Education (NFIE), op. cit.
- ²³⁴ Zimpher, 1995 as cited in The National Foundation for the Improvement of Education (NFIE), op. cit., Section 4, p. 21.
- ²³⁵ Linda Darling-Hammond and Ellalinda Rustique-Forrester, op. cit., p. 4.
- ²³⁶ Allan Odden and Carolyn Kelley, *Paying Teachers for What They Know and Do: New and Smarter* Compensation Strategies to Improve Schools, Corwin Press Inc., 1997. As cited in "Teacher Salary Schedules," ECS Information Clearinghouse, September 1997. Available online at http://www.ecs.org/ECS/...
- ²³⁷ See, for instance, Carolyn Kelley and Allen Odden, "Reinventing Teacher Compensation Systems," CPRE Finance Brief, Consortium for Policy Research in Education, September 1995.
- ²³⁸ Linda Darling-Hammond, November 1997, op. cit.
- ²³⁹ This information was taken from the National Board for Professional Teaching Standards Website, at http://www.nbpts.org/nbpts/where/pacific/california.html.
- National Staff Development Council, Council Update (Spring) 1996:1, as quoted in The National Foundation for the Improvement of Education (NFIE), op. cit., Section 5, p. 2.
- ²⁴¹ Ismat Abdal-Haqq, "Making Time for Teacher Professional Development," ERIC Digest, ERIC Clearinghouse on Teaching and Teacher Education, Washington, DC, October 1996.
- The National Foundation for the Improvement of Education (NFIE), op. cit. Ismat Abdal-Haqq, op. cit.
- ²⁴³ Ismat Abdal-Haqq, op. cit.
- ²⁴⁴ Ibid.
- ²⁴⁵ Ibid.
- ²⁴⁶ Brad Hayward, "CSUS UCD join forces on credential program," *The Sacramento Bee*, January 28, 1998.
- $\begin{array}{l} p.B-1. \\ ^{247} \ The \ National \ Foundation \ for \ the \ Improvement \ of \ Education \ (NFIE), \ op. \ cit. \ Bill \ Wilson, \ Director, \ CSU \end{array}$ Teacher Education & K-18 Programs, personal communication, January 28, 1998.
- ²⁴⁸ "Pipeline to the Future: A Statewide Teacher Recruitment Plan for California," a discussion sponsored by the California Education Policy Seminar and the CSU Institute for Education Reform, April 1997.

 249 "CSU's Commitment to Prepare High Quality Teachers," CSU Board of Trustees Agenda, Education
- Policy Committee, p. 5. July 14-15, 1998.
- ²⁵⁰ Ibid.
- ²⁵¹ Paradise High School in the Chico area has a teaching academy, and CSU Chico has become involved in the club as well. Michael Kotar, Chair, CSU Chico Department of Education, personal communication, April 29, 1998.

 252 The Economist, "Recruiting Teachers, Try M-o-n-e-y" July 18, 1998, p. 27.
- ²⁵³ Ibid., p. 28.
- ²⁵⁴ As cited by the University of Maryland, at http://www.wam.umd.edu/~aaronb/kbecker/intasc.htm.
- ²⁵⁵ California Commission on Teacher Credentialing, http://www.ctc.ca.gov/cstppublication/cstpreport.html The Standards were adopted by the CTC, approved by the State Superintendent of Schools, and endorsed by the State Board of Education, in 1997.
- ²⁵⁶ For more information, see California Commission on Teacher Credentialing, "Certification Alternatives for Implementing Class Size Reduction Grades K-3," http://www.ctc.ca.gov/classsize.html.
- ²⁵⁷ For more information, see California Commission on Teacher Credentialing, "Certification Alternatives for Implementing Class Size Reduction Grades K-3," http://www.ctc.ca.gov/classsize.html.
- ²⁵⁸ Ibid.
- ²⁵⁹ Ibid.
- ²⁶⁰ The program was established by Chapter 1444, Statutes of 1990 (SB 1636, Roberti) and amended by Chapter 1220, Statutes of 1991. For current information on the program, see California Commission on Teacher Credentialing, The California School Paraprofessional Teacher Training Program: An Interim Progress Report to the Legislature, March 5, 1998.
 ²⁶¹ Ibid.

²⁶² See the CredentialNet website, http://www.teach.calstate.edu
²⁶³ Michael Kotar, Chair, CSU Chico Department of Education, personal communication, April 29, 1998.
²⁶⁴ See the Virtual University, at http://www.california.edu.
²⁶⁵ California Commission on Teacher Credentialing, "California Military and Defense Worker Placement Assistance Program," http://www.ctc.ca.gov.